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Guide to South Carolina Saltwater Fishes

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Indicates species
on saltwater
poster.



Visit the SC Reel Kids web site at:
www.screelkids.com

Acknowledgments

Some of the species' descriptions appearing in this guide have been taken from the *AFO Species Identification Sheets for Fisheries Purposes*, edited by W. Fisher (1978), Food and Agriculture Organization of the United Nations. Introductory materials have been taken from various South Carolina DNR publications. Color plates have been reproduced with permission of Mr. Duane Raver, Jr. Common names presented in this guide are those accepted by the American Fisheries Society, *Common and Scientific Names of Fishes of the United States and Canada*, Special Publication 20, fifth edition. Gratitude is expressed to Mrs. BeBe Harrison, Ms. Ginger DeHaven, Dr. Wendy Moore Brusca, Dr. Jack McGovern, Mr. Robert Wiggers, Mr. Don Hammond, Dr. Mark Collins, Dr. Charles Wenner, Dr. Charles Barans, Mr. David Whitaker, Mr. David Cupka, and Ms. Lesleigh Patton for reviewing the manuscript and offering many helpful suggestions.

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How to use this guide

This identification guide provides a quick reference for marine fish that are most often encountered by South Carolina saltwater sport fishermen. To facilitate identification, species are grouped by family so that similar-looking fish will be found in close proximity to one another. Anglers can identify a fish by matching it to the color drawings provided in the identification sheets. Key identifying characters as well as those characters that distinguish each fish from similar looking species are presented. Each species' page includes information on the common size range encountered by anglers fishing in South Carolina and adjacent Federal waters and their approximate maximum total length in inches. Common and maximum sizes for fish species presented in this guide are intended only as a rough estimation. For precise lengths, scientific publications should be consulted. The distribution, habitat, effective angling methods, and food quality are also provided.

Fishing in South Carolina's saltwater

South Carolina's saltwater recreational fishing is unsurpassed. A maze of tidal creeks that flow through thousands of acres of marshland, nearly a half million acres of tidal bottoms, 3,000 miles of tidal shoreline, and 10,000 square miles of continental shelf provide vast opportunities for saltwater anglers. Fishing shoulder-to-shoulder from a Myrtle Beach ocean pier, hooking a spotted seatrout in Murrells Inlet, fighting a cobia in Broad River, or going after dolphin or a giant blue marlin in the Gulf Stream all await the saltwater angler in the Palmetto State. The South Carolina coast provides the quality and diversity of saltwater angling that has made it one of the best sport fishing areas along the Atlantic coast.

Inshore fishing experiences are as numerous and varied as the anglers in South Carolina's coastal waters. One hundred and ninety miles of coastal shoreline provide ample access for surf

Fishing in S.C.'s saltwater continued

fishing. Small boat anglers have virtually unlimited opportunities for fishing in the coastal bays, inlets, creeks and rivers.

The most common tackle employed is a double-hook rig fished directly on the bottom using a small to medium size rod and reel. Dead shrimp is the most common bait to catch smaller fish such as spot, croaker and whiting. Fiddler crabs live near water in the mud or sand throughout estuaries and serve as effective bait for sheepshead. Live shrimp and minnows are often used to catch flounder, trout and red drum.

The best time for offshore trolling is from late April to December, though many pelagic game fish are present year-round in the warm Gulf Stream waters beyond the continental shelf. In shallower (30 to 180 feet deep), dark green waters, king mackerel, Spanish mackerel, little tunny, amberjack, barracuda and bluefish tend to dominate the catch. Anglers venturing into the cobalt blue water further offshore find their catch primarily composed of wahoo, dolphin, blackfin tuna, yellowfin tuna and billfishes. Bottom fishing five to 25 miles from shore in 40 to 90 feet of water over natural rough bottoms (blackfish banks), or further out on the snapper banks, produces excellent catches of black sea bass, porgies, snappers, triggerfish and groupers. South Carolina has constructed numerous artificial reefs marked with buoys, which provide excellent fishing throughout the year for recreational fishermen.



Saltwater Fishing: Conservation and Ethics

Although most people once considered ocean resources to be unlimited, recent rapid declines in the populations of many commercial and recreational species have demonstrated the opposite. Numerous types of saltwater game fish are over harvested, and other species will face a similar fate unless anglers practice wise conservation and adopt an ethical approach to fishing. Size and catch limits, seasons, and gear restrictions should be adhered to strictly. These regulations change from time-to-time as managers learn more about fish life histories, and as they aim to continue to provide angling opportunities without depleting populations.

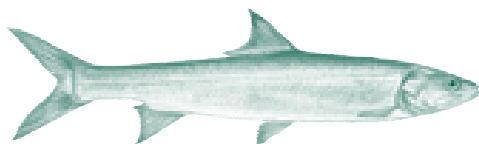
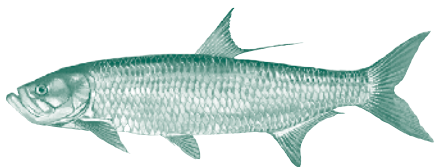
The challenge of catching, not killing, fish provides anglers with the excitement and the reward of fishing. Undersized fish should be released to ensure the success of future populations. The number of tagged and released saltwater fish increases annually in South Carolina as more fishermen adopt this practice, which provides information on the growth and movement of fish and helps to conserve our resources. The Governor's Cup Billfishing Series, which began in 1989, has helped stimulate a conservation ethic among offshore anglers. More than 85 percent of billfish brought to the boat are now tagged and released by both tournament and non-tournament anglers.

Fishermen can also contribute to conservation by purchasing a Saltwater Recreational Fishing License, which is required to fish from a private boat or to gather shellfish in South Carolina's saltwater. Funds generated by the sale of licenses are used for programs that directly benefit saltwater fish and fishermen.

Help conserve our natural resources for the enjoyment of future generations by adhering to all rules, regulations, seasons, catch limits and size limits, and through the catch-and-release of saltwater game fish.

Tips on releasing fish

- ✓ Plan a release strategy before fishing or landing a fish.
- ✓ The faster a surface-dwelling fish is brought to the boat, the better its chances of survival following release. Fish that reside on or near the bottom should be brought to the surface slowly.
- ✓ Do not use gaffs, and if possible, avoid using landing nets or removing large fish from the water. A Boga Grip® or similar device provides an effective means for handling small fish boatside.
- ✓ Minimize handling, especially avoiding the gills and eyes. A soft, wet towel placed over the eyes will provide moisture and keep the fish calm until the fish is tagged.
- ✓ Use pliers to remove the hook from the fish while it is still in the water. If the hook is deeply embedded, cut the leader as close to the fish's mouth as possible.
- ✓ If the fish appears to be exhausted, gently aerate the gills by moving the fish back and forth through the water until it is able to swim off on its own.



If you catch a tagged fish

- Record the tag number.
- Record the date, precise location of catch and type of fish.
- Measure and record the total length of the fish.
Measurement should be taken from the tip of the lower jaw to the tip of the tail. If a fork length (lower jaw to midpoint of tail) is taken, please indicate this after the measurement.
- If mailing in the information, indicate if the fish was released with tag intact or if it was retained.
- Report the recapture as soon as possible.
- Recapture information can be either called in or mailed.



To participate

Anglers wishing to participate in the Marine Game Fish Tagging Program or those who wish to get more information can write to:

SCDNR Marine Game Fish Tagging Program
Office of Fisheries Management
P.O. Box 12559
Charleston, SC 29422

Saltwater Fishing: Rules and Regulations

Individuals (ages 16 and older) harvesting oysters or clams or individuals fishing for marine finfish from privately owned boats must purchase a Saltwater Recreational Fishing License. Fishing piers and chartered vessels charging a fee for fishing and those offering fishing boats for rent must purchase a Saltwater Recreational Fishing Permit annually. Applications for Pier and Charter Vessel Permits are available from the DNR office in Charleston. Any person engaged in selling fish or fishery products, including bait, must first obtain a license from the DNR's Marine Resources Division. Regulations concerning commercial saltwater fishing are provided with commercial licenses and are available through DNR's Marine Resources Division at the address below.

For more information contact: SCDNR, Marine Resources Division; P.O. Box 12559; Charleston, SC 29422. (843) 953-9300.

For federal fishing limits and regulations contact: South Atlantic Fishery Management Council; One Southpark Circle, Suite 306; Charleston, SC 29407. (843) 571-4366.

Help the Department protect South Carolina's natural resources! If you see violations of wildlife, boating or litter laws, please call 1-800-922-5431.

Basic fish information

Fish are vertebrates, which means they have a backbone. They are cold-blooded and well-suited for living in water. Many adaptations allow a fish to survive in the water, some of which include:

Gills: Fish use gills to breathe in the water. Water is forced over the gills, which then pick up oxygen from the water and dispose of carbon dioxide and other wastes.

Slime

Layer: Fish are covered with a layer of mucus that helps protect the fish from disease. Always minimize fish handling to protect the slime layer for fish you plan to release.

Fins: Fish use fins as a means for locomotion. The caudal fin provides momentum, the pectoral fins help with direction, and other fins help with stability in the water.

Eyes: Fish can detect colors and see for short distances. They use vision to escape predators and locate food.

Taste: Some fish have taste buds not only in their mouths, but also on the outside of their head and on their fins. Many fish, such as catfish, have a well-developed sense of taste.

Smell: Fish use their sense of smell to locate food and to assist them in migrating. They have nares, which contain olfactory organs that allow them to differentiate chemicals in the water.

Touch: Fish experience a sense of touch.

Hearing: Fish have inner ear bones called otoliths, which allow them to sense vibrations or sounds. Scientists can use an otolith to determine the age of a fish.

Lateral

Line: Fish have a lateral line that acts as their “sixth sense.” The lateral line contains sensory pores that can detect pressure changes around them in the water. This allows the fish an additional mechanism to locate food and escape predators.

Basic Fish Terminology

adipose eyelid – skin-like covering on eye, may cover entire or only part of eye

adipose fin – a fleshy projection, fin-like but without rays, found behind dorsal fins in primitive fishes

anadromous – saltwater fish that ascend freshwater streams to spawn

anal fin – single fin on the median line of the body just behind anus or vent

anterior – situated toward the front; opposite of posterior

barbel – a fleshy projection in the form of a thread or flap, usually found on head, chin, or around mouth or nostrils

benthic – pertaining to or dwelling on the bottom

catadramous – fish that descend from freshwater streams to the sea to spawn

caudal – pertaining to the tail region, posterior

caudal fin – unpaired fin at posterior end of body, commonly called the tail fin

caudal peduncle – body region behind the anal and dorsal fins, and just forward of caudal fin

claspers – modified pelvic fins of sharks and skates that serve as male reproductive organs

ctenoid scale – scales bearing tiny spines on posterior edge that are rough to the touch

depth – greatest vertical measurement of a fish's body

dorsal fin – unpaired median fin on back, sometimes partially or completely divided

finlets – small, free, fin-like projections behind the dorsal and anal fins

Terminology continued

fork length – distance from the tip of the snout to the fork of the tail

gills – respiratory organs covered by an operculum in bony fishes

gill rakers – stiff projections on the inner or anterior surfaces of the gill arch that are used for straining food

girth – greatest body diameter

heterocercal tail – upper lobe of caudal fin much larger than lower, characteristically seen in sharks

homocercal tail – lobes of caudal fin nearly equal, vertebral column does not extend along upper margin of the fin

ichthyology – the scientific study of fishes

keel – a ridge, or elevated line, present on the body of many fish and sharks

lateral line – a series of pores that form a line along the sides of the body, sensory in function

littoral – pertaining to or dwelling along the shore

nictitating membrane – a thin, transparent flap that can be moved over the eye, also referred to as the third eyelid of sharks and skates

ocellus – an eye-like, dark spot surrounded by lighter pigment on the body or fins

operculum – a bony flap that covers the gills

oviparity – a mode of reproduction where the female shark lays eggs in the form of egg cases, which they attach to algae or corals; embryo development occurs outside the female's body

ovoviviparity – a mode of reproduction where fertilized eggs develop within the body of the female; the embryos do not receive direct nourishment from the mother other than the initial investment of the egg production

pectoral fins – paired fins located just behind the gill openings

pelagic – pertaining to or dwelling in or on the surface of open water

pelvic fins – paired fins located behind and/or below the pectoral fins, also called ventral fins

posterior – situated toward the rear of the animal; opposite of anterior

spiracle – a small opening on the head or neck of some sharks and skates

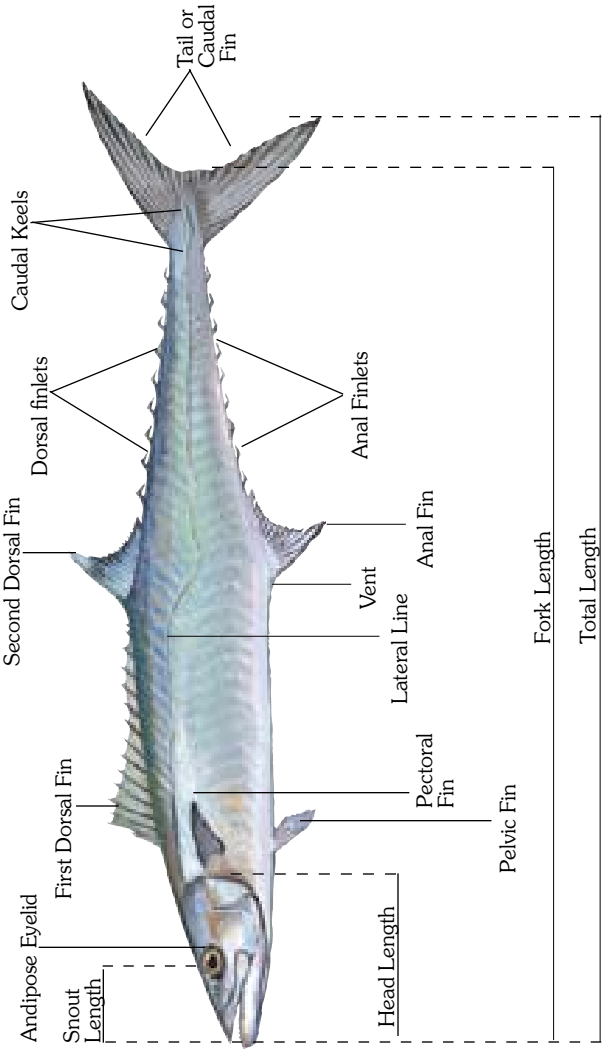
total length – the distance from the tip of the snout to the posterior edge of the tail fin

vent – posterior opening of the digestive tract

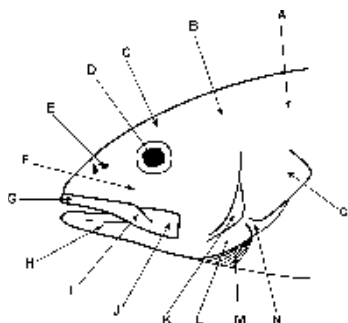
viviparity – a mode of shark reproduction where fertilized eggs hatch and develop within the body of the female; the female shark provides nourishment for the embryos as they develop inside of her

Basic Fish Terminology

Basic Fish Terminology

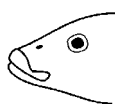


Basic fish terminology continued



- A. NAPE
- B. INTERORBITAL
- C. EYE
- D. NOSTRILS
- E. PREMAXILLARY
- F. MANDIBLE
- G. PREOPERCLE
- H. INTEROPERCLE
- I. BRANCHIOSTERGA
- J. SUBOPERCLE
- K. OPERCLE

MOUTH TYPE



Terminal



Sub-terminal

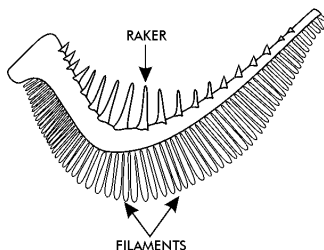


Inferior



Superior

GILL



TAIL TYPE



Rounded



Truncate



Emarginate



Lunate











Forked



Pointed

Angler Ethics

Responsible anglers who respect our fishery resources comply with ethical principles when afield because they know their actions will contribute to a more pleasurable fishing experience for themselves and fellow anglers. Anglers who respect our fishery resources:

-  follow all fishing and boating regulations
-  limit the number of fish killed to those that will be eaten or mounted and never keep fish just to show off
-  carefully release unwanted fish
-  properly dispose of litter, garbage and fish remains in public trash containers or at their homes
-  respect the rights of fellow anglers by keeping a reasonable distance from other boats and other anglers
-  minimize time at boat ramps to allow fellow boaters equal access
-  fish on private property only with permission from the landowner
-  always behave in a safe and courteous manner

Mackerel Sharks

SHORTFIN MAKO, *Isurus oxyrinchus*



Habitat: Mako are most abundant in temperate waters (64-70° F) and are mainly open-water sharks. Since they have the ability to elevate their body temperature, shortfin mako can survive in waters as cold as 41° F.

Identifying Key Characteristics:

Large, slender shark with a long, acutely pointed snout and a single lateral keel on each side of the caudal peduncle. Teeth few in number but large, canine-like, and backward pointing, tooth shape and size similar in both the upper and lower jaws.

Distinguishing Characteristics of Similar Species:

The porbeagle shark has two lateral keels on the caudal peduncle, and the teeth are slender and smooth-edged with a lateral cusp (lateral point) on each side.

Average Size: 135-300 pounds, 98-144 inches

Approximate Maximum Size: 1200 pounds, 216 inches

Mackerel Sharks continued

Food Habits: Shortfin mako are a carnivorous species, using their great speed during hunting. They will feed on squid, herring, billfish and small whales and porpoises. They favor swordfish, which they disable by removing their tails.

Spawning Habits: This species is ovoviviparous. Before birth, the young are cannibalistic, reducing the number within live broods to 1 to 25 pups.

Angling: This species is primarily taken while trolling for billfish, tuna, or other pelagic species. This shark will hit most natural baits such as whole mullet, herring, tuna, mackerel, and also cut bait while chumming. The shortfin mako is an extremely fast-swimming shark. It is known by sport fishermen worldwide for its leaping and aerial gymnastics.

Food Quality: Excellent. Shortfin mako are similar to swordfish in taste and texture.

Requiem Sharks

ATLANTIC SHARPNOSE SHARK,

Rhizoprionodon terraenovae



Habitat: Atlantic sharpnose sharks are usually found in shallow water less than 30 feet deep. They can tolerate brackish water and will inhabit bays, harbors, sounds, river mouths, and estuaries. Atlantic

Requiem sharks continued

sharpnose sharks form schools based on sex and size.

Identifying Key Characteristics:

Sides frequently with a few white spots. First dorsal fin much larger than the second with its origin over the mid-point of the anal fin. No mid-dorsal ridge or lateral keel. Teeth triangular, deeply notched and smooth edged.

Distinguishing Characteristics of Similar Species:

Small sharks are difficult to identify, but the combination of characteristics listed above should distinguish this species from other sharks in South Carolina waters.

Average Size: 10-12 pounds, 20-30 inches

Approximate Maximum Size: 16 pounds, 42 inches

Food Habits: This shark species is carnivorous, feeding on small fish, shrimp, crabs, worms, and mollusks.

Spawning Habits: Atlantic sharpnose sharks give birth to live young with typical litters ranging from four to seven pups. The gestation period is 10-11 months, and the pups are 9-14 inches long at birth.

Angling: Atlantic sharpnose sharks are frequently caught on or near the bottom using all types of live and cut baits including fish, squid, and shrimp. These fish are excellent fighters on light tackle.

Food Quality: Good. The flesh may be soaked in milk or lemon juice to improve the flavor.

Requiem sharks continued

BLACKTIP SHARK, *Carcharhinus limbatus*



Habitat: Blacktip sharks can be found both inshore and offshore and prefer clear water. Usually, they live near continental shelves, drop-offs, areas of surf, and near offshore structures. Occasionally, they can be found near river mouths, estuaries, and bays. Adult blacktips school in groups of the same sex.

Identifying Key Characteristics:

Conspicuously black-tipped fins, no mid-dorsal ridge, snout long, about equal or slightly less than mouth width. Upper and lower teeth erect and narrow with serrated edges.

Distinguishing Characteristics of Similar Species:

Spinner sharks are similar in appearance with black-tipped fins; however, the teeth in the lower jaw have smooth edges, and the eyes are small. None of the fins of the finetooth shark are tipped in black, and the teeth are smooth or very weakly serrated.

Average Size: 40 pounds, 36-72 inches

Approximate Maximum Size: 270 pounds, 96 inches

Requiem sharks continued

Food Habits: Blacktips consume large amounts of food, feeding mostly near the surface, and are aided by a keen sense of smell. Their diet consists of a large assortment including herring, menhaden, mullet, mackerel, grunt, porgies, and even rays, octopus, and crustaceans. They have been known to eat smaller sharks.

Spawning Habits: Female blacktips migrate inshore every two years to give birth. Mating occurs in summer or early fall, followed by a gestation period of about 11 months. the female will give birth to 1 to 10 live young, which are between 16 and 30 inches in length.

Angling: This is a very strong shark that is known for its leaping ability, often making several jumps when hooked. It is taken while trolling, still fishing, or casting with live and cut baits. Chumming is effective.

Food Quality: Excellent.

Misc.: The blacktip shark is not responsible for many human attacks but can be dangerous when provoked.

SMOOTH DOGFISH, *Mustelus canis*



Habitat: The smooth dogfish is a bottom-dweller common in depths from 30-1200 feet. This species migrates to deeper waters during winter.

Requiem sharks continued

Identifying Key

Characteristics:

Small shark with maximum size about four feet. Mid-dorsal ridge between the first and second dorsal fins, which are nearly equal in size. Teeth small, rounded and flat. Fleshly lobe on each nostril.

Distinguishing Characteristics of Similar Species:

The spiny dogfish has a single spine preceding each dorsal fin, and it does not have an anal fin.

Average Size:

9-10 pounds, 12-48 inches

Approximate Maximum Size:

26 pounds, 60 inches

Food Habits:

The dogfish is a scavenger, but does regularly feed on crabs, lobster, and shrimp, as well as small fish.

Spawning Habits:

This species is viviparous, giving birth to live pups in litters of 3 to 18. Gestation is about 10-11 months, and the litters are born in the spring.

Angling:

This shark is frequently caught in coastal waters during winter on live and cut baits fished on the bottom.

Food Quality:

Good. The flesh will spoil quickly if it is not kept on ice.

TIGER SHARK, *Galeocerdo cuvier*



Habitat: Tiger sharks range from the surface down to 1200 feet, commonly entering shallow bays and harbors to feed, especially at night. They are solitary and nomadic, traveling up to 50 miles in one day.

Identifying Key Characteristics:

Body of young sharks with dark brown to black rectangular spots often forming bars on the sides and fins, marks fade with age. Snout blunt, short and rounded. Teeth triangular, strongly serrated and deeply notched. Upper lobe of the tail fin at least three times as long as the lower lobe.

Distinguishing Characteristics of Similar Species:

The tiger shark is distinguished from other sharks by dark spots and bars on the body, a short rounded snout, strong, triangular teeth and the large upper lobe of the tail fin.

Average Size: 300-800 pounds, 98-144 inches

Approximate Maximum Size: 1800 pounds, 216 inches

Food Habits: Tiger sharks are well-known as true scavengers.

Requiem sharks continued

Spawning Habits: Tiger sharks give birth to live young in broods of 10 to 80 pups after a nine month gestation. When born, pups are 20 - 30 inches in length and completely independent.

Angling: This is a top-rated, hard fighting game fish that is frequently taken by anglers. They are often taken incidentally when they attack already hooked fish that are being reeled in.

Food Quality: Poor. The flesh is frequently very strong, and it is generally not eaten.

Misc.: The tiger shark is infamous for being one of the most dangerous sharks. It has been known to attack humans.

Hammerhead Sharks

SCALLOPED HAMMERHEAD, *Sphyrna lewini*



Habitat: Scalloped hammerhead sharks are both an inshore and offshore species. When inshore, they school around live bottom areas and reefs as well as in bays, surf, and tidal shallows. Offshore, they school around the continental shelf and

Hammerhead sharks continued

in deep water up to depths of 900 feet. They are rare in waters colder than 72° F.

Identifying Key Characteristics:

Body elongated and laterally compressed. Head prominently laterally expanded, "hammer shaped," anterior margin of head slightly rounded with a shallow but distinct indentation at the midline. Rear margin of eye slightly forward of mouth. First dorsal fin large, its rear margin concave, second dorsal fin small with its rear tip long and slender, extending backward nearly to the precaudal pit. Teeth triangular with smooth-edged cusps.

Distinguishing Characteristics of Similar Species:

The head of the bonnethead shark is shovel-shaped. The head of other hammerheads either do not have an indentation at the midline, or the corners of the mouth are positioned towards the rear margin of the head, and their teeth have strongly serrated cusps.

Average Size: 100-200 pounds, 36-108 inches

Approximate Maximum Size: 335 pounds, 168 inches

Food Habits: This species feeds on squid, fish, crustaceans, and turtles, as well as smaller sharks.

Spawning Habits: Scalloped hammerheads spawn in large groups where the females form a circle, the stronger females forcing the weaker to the outside. Males then battle into the center to pair with a strong female. This insures that the more mature

Hammerhead sharks continued

members of the population mate. This species is viviparous, giving birth to live young in broods of 15 to 30 pups after a one-year gestation period.

Angling: Hammerhead sharks are some of the hardest fighters of all sharks. They are taken by slow trolling and still fishing with any type of oily or cut fish. They are often taken while chumming.

Food Quality: Good. Smaller hammerhead sharks (under five feet) are best as older sharks may have a very strong taste.

Skates & Stingrays

CLEARNOSE SKATE, *Raja eglanteria*



Habitat: Clearnose skates are generally found lying on the bottom in estuaries and coastal waters.

Identifying Key Characteristics: Body disc-shaped, width greater than length with the outer corners of the discs abruptly rounded. Back light brown with scattered dark brown

Skates and Stingrays continued

to black spots and bars, belly white. Area on either side of snout semi-transparent. Tail about 50 percent of body length.

**Distinguishing
Characteristics of
Similar Species:**

Other skates have ocellar (dark markings surrounded by white) spots on upper surface, are pigmented on lower surface, or have spines or thorns on upper surface of tail. Rays have a long, whip-like tail with a spear-like spine at base of tail.

Average Size: 4-8 pounds, 12-24 inches (disk width)

**Approximate
Maximum Size:** 8-12 pounds, 36 inches (disk width)

Food Habits: Clearnose skates feed mainly at night on crabs and other crustaceans, and on bivalves such as clams, marine worms, squid, and fishes.

Spawning Habits: After breeding, the female stores both the sperm and eggs, and lays a pair of fertilized eggs every three to five days for up to four months. A clearnose skate may produce 30 to 40 pairs of fertilized eggs throughout the spawning season.

Angling: This skate is taken incidentally while bottom fishing.

Food Quality: Poor. Skates are typically not considered a food fish, but fins are occasionally eaten.

Skates and Stingrays continued

STINGRAYS, *Dasyatis spp.*



Habitat: Stingrays generally lie on the bottom, almost completely buried in the sand or soft sediment, and are common in bays and estuaries.

Identifying Key Characteristics:

Body dorsally flattened, mouth on underside of body, tail long and whip-like, usually possessing a spear-like spine at base.

Distinguishing Characteristics of Similar Species:

Skates lack spear-like spine at base of tail.

Average Size: 5-10 pounds, 24-36 inches (disk width)

Approximate Maximum Size: 20 pounds, 60 inches (disk width)

Food Habits: Stingrays feed by flapping their pectoral fins to stir up the sand, which helps them to find worms, small crustaceans, snails, and clams.

Spawning Habits: Stingrays mate in June and give birth (also called "pupping") in September. One female stingray will usually give birth to 1 to 6 live young.

Angling: Stingrays are taken primarily

Skates and Stingrays continued

incidentally while bottom fishing with live and cut baits.

Food Quality: Poor. Stingrays are generally not considered a food fish, but fins are occasionally eaten.

Misc.: Care should be taken when handling spines as they are dangerous. Poison from a gland along the grooves on each side of the spine is transferred to the wound when the spine stabs an object.



Sturgeons

ATLANTIC STURGEON, *Acipenser oxyrinchus*



Habitat: Atlantic sturgeon occur from New York to Florida. This is an anadromous species.

Identifying Key Characteristics:

Head and body covered with bony plates or shields, one row along midline of back, two rows on each side of body and two rows of plates posterior to dorsal and anal fins. Head with an extended snout and a spiracle (a small opening behind eyes). Inferior protractible mouth preceded by four conspicuous barbels. Anal fin with 23 to 30 rays. Tail fin asymmetrical with upper half fleshy and much larger than lower fin.

Distinguishing Characteristics of Similar Species:

The dorsal plates of the shortnose sturgeon are widely spaced. Plates usually do not occur posterior to dorsal fin, and either a single row or no rows occur posterior to anal fin. Anal fin has 19 to 22 rays, and snout is short and rounded (except in juveniles). Shortnose sturgeon are much smaller, rarely exceeding 36 inches.

Average Size: 125 pounds, 72 inches

Sturgeons continued

**Approximate
Maximum Size:**

811 pounds, 168 inches

Food Habits:

Atlantic sturgeon feed on a variety of bottom-dwelling organisms including insects, clams, mussels, crabs, and other crustaceans, as well as small fish and some plant material.

Spawning Habits:

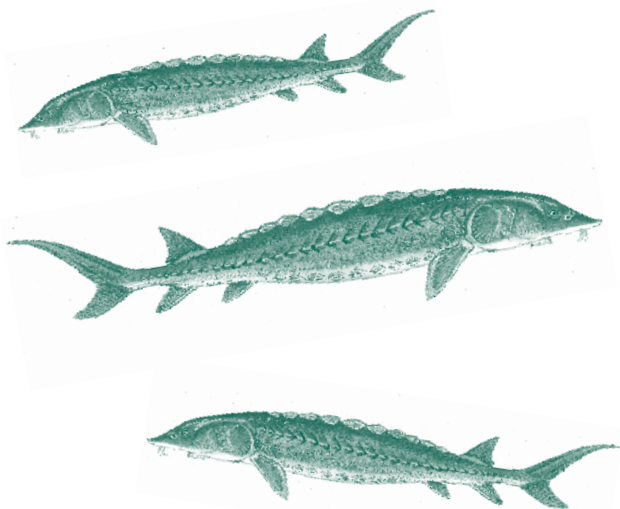
These fish are anadromous, spawning every 3-5 years in the spring from April to May.

Angling:

The Atlantic sturgeon fishery is closed in state and federal waters. It is unlawful for anyone to catch, buy, sell, or ship Atlantic sturgeon caught in U.S. waters at any time. Atlantic sturgeon are rarely taken by hook and line. Historically, fisheries have been conducted with gill nets.

Food Quality:

Not applicable.



Tarpons

LADYFISH, *Elops saurus*



Habitat: Ladyfish are inshore species that prefer bays, estuaries, tidal pools and canals, and occasionally enter freshwater.

Identifying Key Characteristics: Body long and slender with small scales covering the entire body, which is silver in color. Mouth terminal, tail deeply forked.

Distinguishing Characteristics of Similar species: This fish has the appearance of a small tarpon. Tarpon have a greatly extended last dorsal fin ray that is filamentous, and the body has very large scales.

Average Size: 2-3 pounds, 18-24 inches

Approximate Maximum Size: 6 pounds, 36 inches

Food Habits: Adult ladyfish feed mainly on fish and crustaceans. Schools are often seen pursuing food near the surface.

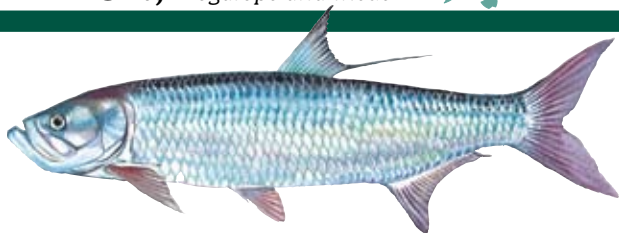
Spawning Habits: Although ladyfish form large schools close to shore, spawning occurs offshore.

Angling: These fish are caught either by trolling or by casting with both natural and artificial baits. They are known for their fighting and jumping ability on light tackle.

Tarpons continued

- Food Quality:** Poor. Ladyfish are very bony and not generally eaten.
- Misc.:** The Ladyfish is also known as the ten-pounder.

TARPON, *Megalops atlanticus*



- Habitat:** Tarpon avoid colder water and are most abundant in estuaries and inshore waters. However, they are also found in coastal freshwater lakes and rivers, offshore marine waters, and occasionally around reefs.

Identifying Key Characteristics:

Body moderately deep with large scales, lower jaw projecting. Origin of the dorsal fin near the mid-point of the body, last dorsal fin ray filamentous and very long.

Distinguishing Characteristics of Similar Species:

Ladyfish are similar in overall appearance but much smaller than tarpon, reaching only four to six pounds. The last dorsal ray is not filamentous or longer than the anterior rays. There are 100 to 120 scales along the lateral line compared to only 40 to 48 in the tarpon.

Tarpons continued

Average Size: 40-50 pounds, 40-60 inches

Approximate

Maximum Size: 150 pounds, 96 inches

Food Habits: Tarpon often travel in schools and are opportunistic eaters, feeding on a variety of fish and crabs.

Spawning Habits: Tarpon begin gathering together in May and June in staging areas near the coast where schools swim in a circular, rotating motion. This behavior is known as a “daisy chain” and may be an activity that prepares the fish for spawning. The actual departure to offshore spawning areas is most likely related to lunar phases and tides.

Angling: Tarpon are known as a hard fighting game fish that often leap out of the water when hooked.

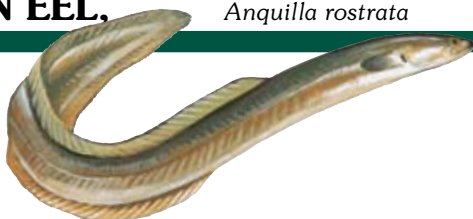
Food Quality: Poor. Tarpon are not generally eaten.

Misc.: The tarpon can survive in a variety of habitats and salinities and can even gulp air for extended periods when oxygen concentrations are low in the water.

Eels

AMERICAN EEL,

Anquilla rostrata



Habitat: American eel are catadromous and occur in estuaries and shallow coastal waters.

Identifying Key Characteristics:

Body elongated, rounded in cross section and covered with small elliptical scales that are embedded firmly in the skin. Mouth terminal, the lower jaw slightly projecting, teeth minute, set in bands in both jaws and in a patch on roof of mouth. Pectoral fins well-developed, moderate in size, pelvic fins absent.

Distinguishing Characteristics of Similar Species:

There are several eel species (conger, moray, shrimp, snake and cusk) that occur in marine waters off South Carolina. The American eel may be distinguished from other eels by the presence of small, embedded scales, the lower jaw extending well beyond the upper jaw, and the origin of the dorsal fin being far behind well-developed pectoral fins.

Average Size: 1/2-3 pounds, 18-30 inches

Approximate Maximum Size: 10 pounds, 36 inches

Eels continued

Food Habits: American eel feed on fish, clams, and crabs in saltwater, and on fish, insects, worms, and other invertebrates in freshwater.

Spawning Habits: American eel are catadromous and spawn in one area of the Sargasso Sea. After hatching, the larval eels, called “elvers,” or “glass eels,” travel into the upper reaches of freshwater streams. They live six to eight years in freshwater before becoming mature and returning to the Sargasso Sea to spawn.

Angling: These fish are caught incidentally while bottom fishing for other species using live or cut baits.

Food Quality: Good. These fish are not frequently eaten in the United States. However, the closely related European eel is considered a delicacy in Europe.

Herrings

AMERICAN SHAD, *Alosa sapidissima*



Habitat: American shad are distributed along the Atlantic coast from Canada to central Florida. These fish are anadromous.

Identifying Key Characteristics:

Body compressed, its depth variable and increases with size, belly with scutes forming a distinct keel. Back bluish-green with metallic luster fading to silver on sides, dark spot on shoulder followed by several more spots, fins pale green. Dorsal fin base slightly anterior to center point of body. Upper jaw with a distinct median notch, teeth present in jaws. Gill rakers number 59 to 73 on lower limb of anterior gill arch. Membranes surrounding internal organs pale.

Distinguishing Characteristics of Similar Species:

The back of the blueback herring is dark blue, and the fins are slightly yellow to greenish. The gill rakers are slender, and there are 45 to 51 on lower limb of anterior gill arch. The membranes surrounding internal organs are black. The hickory shad has obscure spots on its sides behind a dark spot on shoulder and usually narrow dark lines on upper part of body. Gill rakers number 18 to 23 on lower limb of anterior gill arch. The membranes surrounding internal organs are pale. Menhaden have enlarged pre-dorsal scales on both sides of the middle of the back and 7 pelvic rays compared to 9 in *Alosa* species.

Average Size: 4 pounds, 16-20 inches

Approximate Maximum Size: 12 pounds, 24 inches

Food Habits: American shad are filter feeders, straining water through their gill rakers, and feeding on small crustaceans, algae, and insects.

Herrings continued

Spawning Habits: American shad are anadromous. They spawn in the spring, usually in March and April, as water temperatures approach 55° F. Adults may travel hundreds of miles upstream before spawning. Young fish remain in the lower reaches of rivers and in estuarine waters until they have grown large and old enough to return to the ocean.

Angling: These fish are plankton feeders; however, they are often thought of as game fish. They are taken on hook and line with artificial lures known as shad darts.

Food Quality: Excellent. This fish has many small bones. The roe is considered a delicacy and is featured by many lowcountry restaurants.

BLUEBACK HERRING, *Alosa aestivalis*



Habitat: These fish range from Nova Scotia to Florida and frequently travel in large schools.

Identifying Key Characteristics: Body moderately compressed, belly with scutes forming a distinct keel. Back dark blue, fins slightly yellow to greenish. Dorsal fin near center point of body. Upper jaw with a distinct

median notch and minute teeth. Gill rakers slender, 41 to 51 on lower limb of anterior gill arch. Membranes surrounding internal organs black.

**Distinguishing
Characteristics of
Similar Species:**

The hickory shad has fewer gill rakers on lower limb of the anterior gill arch (18 to 23), and the membranes surrounding the internal organs are pale. American shad have many more gill rakers (59 to 73) on the lower limb, and the membranes surrounding the internal organs are also pale. Menhaden have enlarged predorsal scales on both sides of the midline of the back.

Average Size: 1/3 pound, 10-12 inches

**Approximate
Maximum Size:** 1 pound, 14 inches

Food Habits: Blueback herring are filter feeders, straining water through their gills and feeding on small crustaceans, algae, and insects.

Spawning Habits: Blueback herring are anadromous. They spawn during spring, usually in March and April, as water temperatures begin to warm. Young fish remain in the lower reaches of rivers and in estuarine waters until they have grown strong enough to return to the ocean.

Angling: These fish are not normally targeted by recreational fishermen and are infrequently taken on a baited hook. They are used as fishing bait and are also harvested commercially for crab bait.

Herrings continued

Food Quality: Poor. These fish are not generally eaten fresh, but rather, they are usually pickled and smoked.

Toadfishes & Lizardfishes

OYSTER TOADFISH, *Opsanus tau*



Habitat: The toadfish is primarily an inshore, bottom-dwelling species, inhabiting rocky bottoms and reefs, jetties, and wrecks. They frequently live among litter and can tolerate polluted water.

Identifying Key Characteristics:

Body scaleless, color variable, usually brown with orange to yellow mottling and a white belly. Head broad and flattened with many barbels and fleshy flaps. Mouth large with short, stubby teeth. Eyes on top of head directed upward.

Distinguishing Characteristics of Similar Species:

The similar looking leopard toadfish found in deeper offshore waters has a mottled belly.

Toadfishes & Lizardfishes continued

Average Size: 1-2 pounds, 8-12 inches

Approximate

Maximum Size: 4 pounds, 15 ounces; 14 inches

Food Habits: Toadfish consume incidental vegetation as well as crabs, anemones, clams, shrimp, sea urchins, and small fish.

Spawning Habits: After the female toadfish lays her eggs, the male guards the nest and wards off predators while eggs are incubating (about 3 weeks). While both sexes are known for the grunting sound they make when caught or threatened, males produce a loud foghorn sound to attract females during spawning.

Angling: These fish are caught incidentally while fishing for other bottom fish. They will bite any type of live or cut baits.

Food Quality: Poor. These fish are not normally eaten.

Misc.: They must be handled with care because of their strong jaws and the stiff spines in their fins.

INSHORE LIZARDFISH, *Synodus foetens*



Habitat: Inshore lizardfish occur in inshore waters and frequently enter brackish waters.

Identifying Key Characteristics: Long, cylindrical body that is brownish with a green tint, often with some mottling and spots, belly white. Adipose fin present. Mouth with numerous, large teeth.

Distinguishing Characteristics of Similar Species: The large teeth, adipose fin and long, cylindrical body separate lizardfish from other types of fish. Several species of lizardfish may be encountered in South Carolina offshore waters, but the inshore lizardfish is the only typical inshore resident.

Average Size: 2 pounds, 10-14 inches

Approximate Maximum Size: 2-3 pounds, 16 inches

Food Habits: Lizardfish are voracious carnivores that are capable of burying themselves in sediment where they lie in wait for small fish.

Spawning Habits: Spawning occurs throughout the year in open water. Newly hatched larvae are found near the surface of the open ocean.

Toadfishes & Lizardfishes continued

Angling: These fish are taken primarily by bottom fishing with live and cut baits in coastal and inshore waters.

Food Quality: Poor. These fish are not generally eaten in the U.S.

Temperate Basses

STRIPED BASS, *Morone saxatilis*



Habitat: While found in the major freshwater rivers in South Carolina, striped bass are also common along coastal inshore environments and tidal tributaries, but they never range more than a few miles offshore. They are often found around piers, jetties, tide pools, rips, flats, and rocks.

Identifying Key Characteristics:

Body moderately elongated in young becoming stouter in adults. Seven or eight dark horizontal stripes form scale rows on upper sides, area between eyes not scaled. Two dorsal fins present, the first spiny and the second soft-rayed. Anal fin with three strong spines and

Temperate basses continued

seven to 13 soft rays. Mouth terminal, teeth small, two tooth patches on tongue, lower jaw projecting slightly. Tail fin moderately forked.

Distinguishing Characteristics of Similar Species:

White, yellow and hybrid striped bass are not generally encountered in marine or estuarine waters. White bass are silvery with faint, horizontal stripes on the sides of the body, and there is only one tooth patch on tongue. Hybrid bass have two tooth patches on tongue and seven or eight broken horizontal stripes above lateral line.

Average Size: 5-10 pounds, 18-36 inches

**Approximate
Maximum Size:** 78 pounds, 60 inches

Food Habits: Striped bass are voracious and opportunistic feeders that prey heavily on small fish.

Spawning Habits: Spawning occurs in fresh or slightly brackish waters where the current is strong enough to keep the eggs suspended and when the water temperature is between 50 and 73° F. Females may release 180,000 to 4.5 million eggs, depending on size. When mating, several smaller males accompany each female. The spawning fish swim near the surface of the water, turning on their side and rolling and splashing (sometimes called a "rock fight"). Semi-buoyant eggs are released and then float with the current until hatching.

Temperate basses continued

Angling: The striped bass is South Carolina's state fish. It is caught both in fresh and estuarine waters by a wide variety of methods, including trolling, jigging, bait fishing, surf casting and fly-fishing. Both natural and artificial baits are effective.

Food Quality: Excellent. The white, flaky flesh of striped bass freezes well and may be prepared numerous ways.

WHITE PERCH, *Morone americana*



Habitat: White perch occur in brackish waters from Canada to South Carolina.

Identifying

Key Characteristics: Body deep and compressed, silvery in color, young have faint longitudinal stripes. Spinous and soft dorsal fins connected. The second anal spine nearly as long as the third spine.

Distinguishing Characteristics of Similar Species:

Small striped bass may be separated by seven or eight dark, horizontal stripes on sides. The first and second dorsal fins are slightly separated, and the second spine of the anal fin is shorter than the third spine. Most other similar species have either three opercular spines, or only two anal fin spines, or a tail fin that is not forked.

Temperate basses continued

Average Size: 3/4 pound, 8 to 10 inches

Approximate

Maximum Size: 4 pounds, 12 ounces; 12 inches

Food Habits: White perch feed on a variety of small fish, insects, crustaceans, and other invertebrates.

Spawning Habits: During the spring, April through June, white perch migrate from estuarine waters into freshwater streams to spawn. A female may spawn as many as 300,000 eggs, which are immediately fertilized by male fish. Depending on the water temperature, these eggs will hatch in as little as 30 hours to as long as six days.

Angling: These fish are caught on or near the bottom, while fishing with most types of live or cut baits.

Food Quality: Excellent. White, flaky flesh that may be broiled or fried.

Sea Basses

BLACK SEA BASS, *Centropristis striata*



Habitat: The black sea bass is a bottom-dwelling species found around wrecks, reefs, piers, and jetties, as well as over beds of shells and rock. They prefer warmer waters, living offshore in winter and moving inshore during the spring.

Identifying Key Characteristics:

Body color very dark. Preopercle finely serrated without a strong spine or spiny lobe, opercle with three flat spines. Dorsal fin single, notched with 10 spines and 11 soft rays. Tail fin rounded, often with a single upper ray elongated in adults.

Distinguishing Characteristics of Similar Species:

The body color of the bank sea bass is light with three horizontal rows of black blotches on the sides as well as numerous blue and yellow stripes. Spots are present on the head, fins and forward part of body. Dorsal spines and middle ray of tail fin have jet black spots. Rock sea bass also have a light body color with seven brownish bars on the upper sides, a yellowish band across the anal fin, and long, fleshy filaments

Sea basses continued

on the dorsal spines. A distinct black spot is present at the base of the last three dorsal spines.

Average Size: 1-3 pounds, 10-12 inches

**Approximate
Maximum Size:** 9 pounds, 18 inches

Food Habits: Black sea bass feed on clams, shrimp, worms, crabs, and small fish.

Spawning Habits: Spawning occurs in March through May. Black sea bass are hermaphroditic, beginning their lives as females and later developing into males.

Angling: Still and drift fishing on or near the bottom with squid and live and cut baits are effective methods of catching these fish. They often voraciously attack a baited hook.

Food Quality: Excellent. Black sea bass have white, firm (but flaky) flesh that is a favorite of many fishermen.

ROCK SEA BASS, *Centropristis philadelphica*



Habitat: Rock sea bass are found over sandy and muddy bottoms in 30 to 60 feet of water, primarily in estuaries.

**Identifying Key
Characteristics:** Body color light, seven brownish bars

on upper sides, yellowish band across anal fin. Dorsal spines with long, fleshy filaments, distinct black spot at base of last three dorsal spines.

**Distinguishing
Characteristics of
Similar Species:**

Black sea bass have a dark body color, nearly black, and are dark blue between eyes (breeding males). The median fins are uniform in color, and the tail fin of adults has a single, elongated, upper ray. The body color of the bank sea bass is light, and the sides have three horizontal rows of black blotches with numerous blue and yellow stripes and spots on the head. The fins and forward part of body, middle ray of tail fin, and dorsal spines have jet black spots.

Average Size: 1-2 pounds, 6-8 inches

**Approximate
Maximum Size:** 3 pounds, 10 inches

Food Habits: Rock sea bass feed on small fish, shrimp, crabs, and other small crustaceans.

Spawning Habits: Rock sea bass spawn in early spring from January through March. Eggs are deposited in the open waters or on the sea floor.

Angling: Still and drift fishing on or near the bottom with squid and live and cut baits are effective methods of catching these fish.

Food Quality: Good.

Sea basses continued

GAG, *Mycteroperca microlepis*



Habitat: Young gag can be found in estuaries, while adults usually inhabit offshore areas around rocky ledges, undercuts, and reefs.

Identifying Key Characteristics:

Body color gray with dark gray squarish blotches. Preopercle angulated and slightly notched with a distinct lobe at the angle, opercle with three flat spines, middle one the largest, rays of vertical fins not prolonged. Anal fin with three spines and 11 soft rays.

Distinguishing Characteristics of Similar Species:

Scamp have well-separated spots on sides of head and body, and rays of vertical fins are greatly prolonged. Speckled hind, red grouper, warsaw grouper and snowy grouper all have seven to nine soft anal fin rays and a more robust body that is deepest at origin of dorsal fin.

Average Size: 10-15 pounds, 30-36 inches

Approximate Maximum Size: 80 pounds, 48 inches

Food Habits: Adults prefer such fish as sardines, porgies, snapper and grunts, as well as crabs, shrimp, and squid. Young gag feed mainly on crustaceans found in shallow waters.

Sea basses continued

- Spawning Habits:** Gag spawn in February and March. A single female may lay more than one million eggs.
- Angling:** These fish are frequently taken with live and cut baits fished around natural rocky outcroppings, artificial reefs, and other irregular bottoms.
- Food Quality:** Excellent. White, flaky flesh makes gag one of the most desirable fish for grilling, frying, or broiling.

SCAMP, *Mycteroperca phenax*



- Habitat:** Scamp prefer complex structures near reefs, jetties, pilings and wrecks at depths of up to 300 feet.

Identifying Key Characteristics:

Body color light brownish-gray with small, well-separated spots resembling cat paws, and a yellow coloration on jaws. Preopercle angulated with a marked notch above the angle followed below by a prominent serrated lobe, opercle with three flat spines, middle one the largest. Rays of caudal and anal fins greatly prolonged. Anal fin with three spines and 11 soft rays.

Sea basses continued

Distinguishing Characteristics of Similar Species:

Gag do not have well-separated, distinct spots on body, and the rays of the vertical fins are not prolonged. Speckled hind, red grouper, warsaw grouper, and snowy grouper all have seven to nine soft anal fin rays, and more robust bodies that are deepest at origin of dorsal fin.

Average Size: 8-10 pounds, 18-24 inches

**Approximate
Maximum Size:** 29 pounds, 38 inches

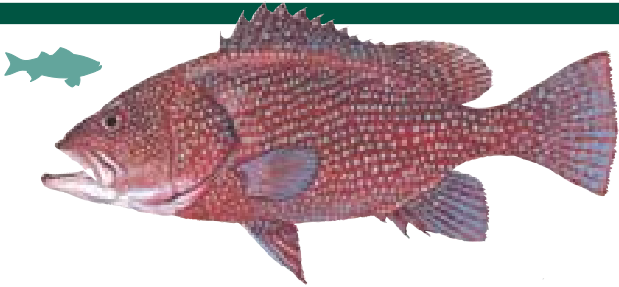
Food Habits: Little is known about the feeding habits of scamp, except that they are ambush hunters and feed on small fish, squid, octopus, shrimp, and crabs.

Spawning Habits: Scamp spawn from February to August in very large groups over reefs, and wrecks. The eggs are scattered over open water.

Angling: Scamp are caught by fishing over rocky and live bottoms and around wrecks and artificial reefs. Still and drift fishing on or near the bottom with squid and live and cut baits are effective.

Food Quality: Excellent. Scamp have white, flaky but firm flesh.

SPECKLED HIND, *Epinephelus drummondhayi*



Habitat: Preferring warm waters with temperatures from 60 to 85° F, the speckled hind can be found around rocky ledges and sea mounts with good currents.

Identifying Key Characteristics:

Body color reddish-brown, fading to bluish-purple on underside. Fins, head and body covered with small, creamy white spots. Scales very rough to the touch. Dorsal fin single with 11 spines, its spiny and soft parts separated by a shallow notch. Anal fin with three spines and nine soft rays.

Distinguishing Characteristics of Similar Species:

Young yellowedge grouper have only a few white spots that are arranged in regular rows and a dark spot anterior to the tail fin. Adults do not have light spots on body or fins. Young warsaw grouper have a few white spots, and adults have no white spots and 10 dorsal spines. Red grouper and snowy grouper have a pattern of vertical bars on the sides of the body and no white spots. Gag and scamp have a more elongated body and 11 soft anal spines.

Sea basses continued

Average Size: 5 pounds, 16-20 inches

**Approximate
Maximum Size:** 30 pounds, 42 inches

Food Habits: Speckled hind feed by opening their mouths and extending their gill covers to quickly draw in a current of water, forcing the prey to be inhaled and swallowed whole. This species favors fish, crabs, shrimp, and mollusks found along the bottom.

Spawning Habits: Speckled hind begin life as females, and as they mature, they become males. Females reach sexual maturity around four to five years of age. Spawning occurs from July through September in offshore waters.

Angling: Speckled hind frequently are taken by bottom fishing around natural rocky outcroppings, artificial reefs, and other irregular bottoms with live and cut baits.

Food Quality: Excellent. White, flaky flesh makes these fish most desirable for grilling, frying, or broiling.

Misc.: The speckled hind is so named because of the large number of white spots on its head, body and fins.

WARSAW GROUPER, *Epinephelus nigritus*



Habitat: Warsaw grouper are a deep water species occurring in 120 to over 1000 feet of water and can usually be found over rough, rocky bottoms, deep ledges, and drop-offs. Young warsaw are frequently found around jetties, natural reefs, and other nearshore structures.

Identifying Key Characteristics:

Body dark reddish-brown to almost black, fading to dull reddish-gray below. Dorsal fins rounded with 10 spines, the second spine much larger than the third, and the membrane is deeply notched. Anal fin rounded with three spines and nine soft rays.

Distinguishing Characteristics of Similar Species:

All other groupers, except the red grouper, have nine or 11 dorsal spines. Red grouper have angular fins, a third dorsal spine longer than the second, and the membrane is not notched. Snowy grouper have a spiny dorsal fin with a black margin. Gag and scamp have more elongated bodies with 11 soft anal fin rays.

Average Size: 30 to 80 pounds

Sea basses continued

Approximate

Maximum Size: More than 500 pounds, 60 inches

Food Habits: It is believed that these fish do not actively search for food but lie in wait ambushing their prey. They prefer to feed on fish, crustaceans, and even juvenile sea turtles.

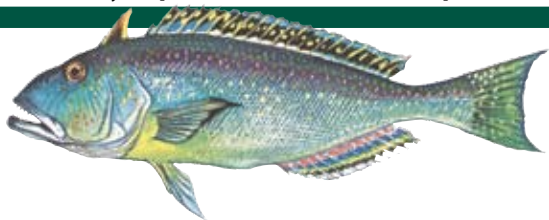
Spawning Habits: As with other groupers, Warsaw grouper change sex, transforming from female to male fish as they get older. During spawning, eggs and sperm are released into the water at the same time. A female may shed from 1.5 million to 5 million eggs in a spawn and can spawn several times during a season.

Angling: Warsaw grouper are caught bottom fishing over live bottoms and rocky outcroppings. A heavy rod baited with live or cut bait, such as squid, is effective.

Food Quality: Excellent. White, flaky and firm flesh.

Tilefish

TILEFISH, *Lopholatilus chamaeleonticeps*



Habitat: Tilefish occur from Nova Scotia to Florida and throughout most of the Gulf of Mexico. These fish are found in deep water (over 1,000 feet) on muddy bottoms, where they reside in burrows, or on irregular bottoms.

Identifying Key Characteristics:

Body elongated, back and upper sides bluish-green becoming yellow or rose on lower sides, head tinged in red, numerous irregular yellow and white spots over body and fins. Pre-dorsal ridge developed into a fleshy flap in front of dorsal fin. Dorsal fin with seven spines and 14 or 15 rays. Anal fin with two spines and 14 or 15 rays.

Distinguishing Characteristics of Similar Species:

Blueline tilefish have a pre-dorsal ridge but no fleshy flap in front of dorsal fin. The dorsal fin has seven spines and 25 rays, and the anal fin has one spine and 23 rays. The preoperculum is serrated. Sand tilefish do not have a mid-dorsal ridge or a fleshy flap in front of dorsal fin, and the preopercle margin is smooth. The dorsal fin has four or five

Tilefish continued

spines and 54 to 60 rays, and the anal fin has one spine and 48 to 55 rays.

Average Size: 5-10 pounds, 18-24 inches

**Approximate
Maximum Size:** 35 pounds, 48 inches

Food Habits: Tilefish feed primarily on shrimp and crabs, but will also eat fish, squid, and bivalves.

Spawning Habits: Tilefish spawn during the summer in deep offshore waters around 600 feet. Tilefish are a slow-growing and long-lived fish; however, little is known about their spawning habits or age of maturity.

Angling: Tilefish are seldom fished recreationally because they reside at extreme depths.

Food Quality: Excellent.

Bluefishes

BLUEFISH, *Pomatomus saltatrix*



Habitat: Bluefish are typically found in shallow coastal waters traveling in schools.

Identifying Key Characteristics:

Body compressed, back greenish-blue, side and belly silvery, head large. Mouth terminal, jaw teeth prominent and in a single row. Two dorsal fins, first short and low with seven or eight spines, the second long with one spine and 23 to 28 rays. Tail fin forked.

Distinguishing Characteristics of Similar Species:

No other species is of similar appearance.

Average Size: 3 pounds, 10-20 inches

Approximate Maximum Size: 31 pounds, 38 inches

Food Habits: Bluefish are extremely voracious and even cannibalistic. They are known to target schools of menhaden, mackerel, and herring and will hold feeding frenzies, tearing through schools of small fish.

Spawning Habits: Spawning occurs mainly in the summer when bluefish migrate out to open seas. Eggs are released and drift along with

Bluefishes continued

plankton on the surface, hatching about two days after fertilization.

Angling: These fish are known to bite anything. Fishing methods include trolling and casting live and dead baits from boats, piers, and the shore.

Food quality: Good. Bluefish quickly become soft and do not freeze or keep well.



Cobias

COBIA, *Rachycentron canadum*



Habitat: Cobia can be found in shallow continental shelf waters, and often congregate along reefs and around buoys, pilings, wrecks, anchored boats, and other stationary or floating objects. They are also found over mud, gravel, and sand bottoms, as well as natural and artificial reefs at depths of up to 60 feet.

Identifying Key Characteristics:

Body elongated, back and sides dark brown with two sharply defined silvery bands, belly yellowish. Head broad and depressed. Mouth large and terminal. First dorsal fin with seven to nine short and strong isolated spines not connected by a membrane, second dorsal long with 27 to 33 rays. Upper lobe of tail fin longer than lower lobe.

Distinguishing Characteristics of Similar Species:

Sharksuckers (remora) are very similar to young cobia but may be distinguished by the presence of an adhesive disc on top of the head.

Average Size: 15 pounds, 30-48 inches

Approximate Maximum Size: 150 pounds, 60 inches

Cobias continued

Food Habits: Cobia feed mostly on crustaceans, particularly shrimp and crabs, as well as eels, squid, and various small fish found in shallow coastal waters.

Spawning Habits: It is believed that cobia spawn in offshore waters between April and May.

Angling: These are strong, hard-hitting game fish that frequently make numerous runs. They are caught trolling, bottom fishing, jigging and casting live baits and lures. Effective live baits include soft and hard crabs, eels, squid, and small fish.

Food quality: Excellent. Cobia have white, solid flesh, considered by many to be one of the best tasting saltwater fish.

Misc.: This species is the only member of the cobia family.

Jacks

CREVALLE JACK, *Caranx hippos*



Habitat: Crevalle jack can tolerate a wide range of salinities. They inhabit coastal brackish waters, and may go up rivers. They are regularly found over inshore

reefs, and in harbors and protected bays from May through October and are common in depths up to 130 feet.

Identifying Key Characteristics:

Body greenish to bluish above and silvery-white below. Juveniles often have five dark bars on body. Fins yellowish with a large, oval, black spot on the pectoral fins. Chest lacks scales except for a small patch in front of the pelvic fins. First rays of second dorsal fin and anal fin greatly elongated.

Distinguishing Characteristics of Similar Species:

Other jacks and similar looking fish lack the rounded, dark spot on the pectoral fins.

Average Size: 3-5 pounds, 18-24 inches

Approximate Maximum Size: 55 pounds, 40 inches

Food Habits: This species is known as a ravenous predator, feeding on shrimp and other invertebrates, as well as smaller fish. They will often corner a school of fish or will chase prey onto beaches and against seawalls.

Spawning Habits: Spawning occurs offshore from March through September.

Angling: These very fast-swimming fish are known for their strength and fighting ability. They are caught by casting and trolling with natural or artificial lures.

Food Quality: Poor. These fish are not considered a good eating fish. Larger fish frequently contain parasitic worms.

FLORIDA POMPANO, *Trachinotus carolinus*



Habitat: Florida pompano are abundant in and throughout shallow coastal inshore waters over sand and shell bottoms from June through October.

Identifying Key Characteristics:

Body deep and laterally compressed, back grayish-blue fading into yellow on lower sides, belly white, scales very small. Teeth very small, none on tongue. Six small spines in front of dorsal fin. Dorsal fin with one spine followed by 22 to 27 soft rays. Two spines in front of anal fin. Anal fin with one spine and 20 to 24 soft rays.

Distinguishing Characteristics of Similar Species:

The permit has fewer soft rays in the anal fin (16 to 19 compared to 20 to 24). The almaco jack and rudderfish have caudal peduncle grooves and relatively short anal fin bases. The soft dorsal and anal fins of the leatherjacket are followed by 10 or more semi-detached finlets.

Average Size: 1-3 pounds, 10-14 inches

**Approximate
Maximum Size:** 7 pounds, 18 inches

Food Habits: The pompano feeds on mollusks, crustaceans, other invertebrates, and small fish.

Spawning Habits: Spawning occurs offshore between March and September.

Angling: Florida pompano are caught on light tackle in the surf along beaches, in shallow waters, and around inlets.

Food Quality: Excellent. These fish have white, firm flesh that may be fried, broiled or grilled.

GREATER AMBERJACK, *Seriola dumerili*



Habitat: Greater amberjack are found mostly in offshore waters and at considerable depths, as well as around offshore reefs, wrecks, buoys, and other near-bottom structures.

**Identifying Key
Characteristics:** Back and upper sides usually bluish-brown to olive, sides and belly lighter. Usually, a dark strip runs through the eye to the dorsal fin origin, and an amber stripe runs from the eye along the middle of the body. Individuals over

Jacks continued

12 inches have 11 to 19 gill rakers on the lower limb of the first arch. Deep grooves occur (top and bottom) in front of tail fin.

Distinguishing Characteristics of Similar Species:

The almaco jack is of similar appearance, but its head is more pointed, and its body is deeper. The front lobes of the dorsal fin and anal fin are deeply sickle-shaped. Lesser amberjack have more gill rakers, 23 to 26, on the lower limb of the first arch. The rainbow runner has a two-rayed finlet posterior to its dorsal and anal fins.

Average Size: 15 pounds, 34-40 inches

**Approximate
Maximum Size:** 155 pounds, 60 inches

Food Habits: Greater amberjacks feed on fish, crabs, and squid.

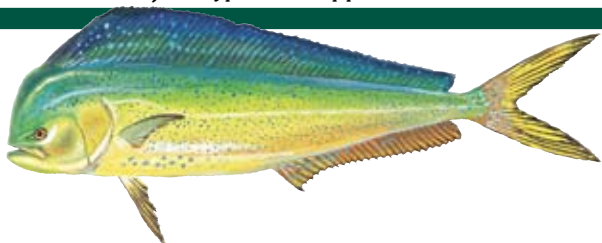
Spawning Habits: Greater amberjacks spawn offshore from March through June.

Angling: These fish are top quality game fish known as hard fighters. They are frequently caught trolling near the surface with artificial lures or bottom fishing with live bait.

Food Quality: Good. Larger fish may contain parasites (particularly in tail region). In tropical areas, these fish are suspected of causing ciguatera poisoning.

Dolphins

DOLPHIN, *Coryphaena hippurus*



Habitat: Dolphins inhabit the open ocean and are usually found close to the surface where they cluster around floating objects, especially buoys, driftwood, and seaweed.

Identifying Key Characteristics:

Color variable, including brilliant and metallic yellows, blues and greens with deep blue spots over body and golden blotches running beside the dorsal fin. Single dorsal fin extends from above the eye almost to the tail fin. Mature males (called bull dolphin) have a very blunt forehead, and females have a gently sloping forehead.

Distinguishing Characteristics of Similar Species:

Pompano dolphin are caught much less frequently and can be distinguished only by the number of fin rays (48 to 55) in their dorsal fins (compared to the 55 to 65 rays in the dolphin), and by the shape of the tooth patch on the upper surface of the tongue.

Average Size: 5-15 pounds, 24-40 inches

Dolphins continued

Approximate

Maximum Size: 88 pounds, 60 inches

Food Habits: Foraging on whatever is most abundant, dolphins feed in pairs, small packs and schools.

Spawning Habits: Spawning begins in spring or early summer and lasts several months. Dolphins are prolific spawners and grow very rapidly.

Angling: Known for their hard-hitting and aerial gymnastics when hooked, dolphin are one of the most sought after of all marine fish both as a sport fish and as a delicious food fish. Dolphins are taken primarily by trolling natural and artificial surface baits but are also frequently taken by casting and by live bait fishing.

Food Quality: Excellent. Dolphins are considered by many to be one of the best tasting saltwater fish.

Misc.: Dolphins are often marketed as Mahi-mahi.

Snappers

GRAY SNAPPER, *Lutjanus griseus*



Habitat: Juvenile gray snapper can be found inshore in tidal creeks. Adults are generally found nearshore or offshore near rocky reefs.

Identifying Key Characteristics:

Body color highly changeable, back and upper sides dark gray to gray-green, often dark olive with a reddish tinge, may be blotched. No dark spots on body, often orange to rusty dots on center of scales on sides. No scales on upper side of head, snout or jaw. Outer pair of canine teeth in upper jaw much larger than lower canines, tooth patch on roof of mouth anchor-shaped. Dorsal fin has 10 spines and 14 rays.

Distinguishing Characteristics of Similar Species:

Cubera snapper have equally well-developed, strong canine teeth in both jaws, and the tooth patch on roof of mouth is triangular. Mutton snapper have a conspicuous dark spot on sides below dorsal fin. Lane snapper have a conspicuous spot on sides below dorsal fin, and tooth patch on roof of mouth is anchor-shaped.

Snappers continued

Average Size: 2-5 pounds, 12-22 inches

**Approximate
Maximum Size:** 16 pounds, 36 inches

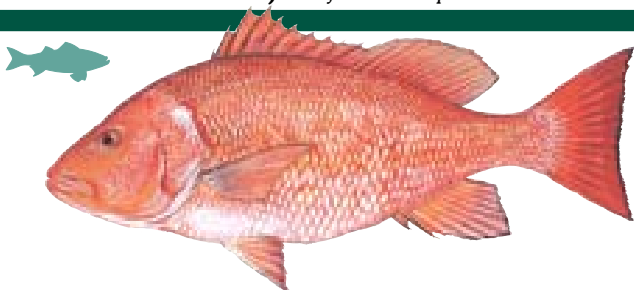
Food Habits: Feeds mostly on crustaceans and small fish, primarily at night.

Spawning Habits: For the gray snapper, spawning occurs from June through August. Individual snappers may spawn multiple times during the course of the reproductive season. Gray snapper spawn in aggregations during the time surrounding the full moon.

Angling: They are taken by hook and line fishing on or near the bottom with live and cut baits.

Food quality: Excellent.

RED SNAPPER, *Lutjanus campechanus*



Habitat: Red snapper favor rocky bottoms at depths of 60 to 400 feet.

**Identifying Key
Characteristics:** Body deep, head comparatively large. Back and upper sides scarlet to brick red. Iris of eye red. Tooth patch on roof of mouth anchor-shaped and well-developed. Dorsal fin with 10 spines

and 14 rays. Anal fin angulated with three spines and nine rays.

**Distinguishing
Characteristics of
Similar Species:**

The silk snapper has a pink to red body color, and the iris of eye is yellow. There are eight anal fin rays. The mutton snapper has olive-green back, upper sides and upper tail fin. Two blue stripes are present on snout and cheek, and a dark spot appears below the soft portion of dorsal fin. Tooth patch on roof of mouth is chevron-shaped. The wenchman's back and upper sides are pink to rose. The head region between eyes is flat, and the tooth patch on roof of mouth is chevron-shaped. The dorsal fin has 10 or 11 rays. Coloration of the vermilion snapper is bright to light red. The tooth patch on the roof of mouth is rhomboid-shaped, and there are 12 or 13 spines and 10 or 11 soft rays in the dorsal fin.

Average Size: 8-20 pounds, 22-26 inches

**Approximate
Maximum Size:** 50 pounds, 40 inches

Food Habits: As opportunistic bottom feeders, red snapper prey on fish, shrimp, crabs, and worms.

Spawning Habits: Spawning occurs from June through October.

Angling: These are hard-hitting fish that are primarily caught on slow-moving or still baits such as squid or cut bait.

Food quality: Excellent. Red snapper are one of the most sought after fishes due to their food quality.

SILK SNAPPER, *Lutjanus vivanus*



Habitat: Silk snapper are found along rocky ledges, mostly at depths between 150 and 800 feet.

Identifying Key Characteristics:

Back and upper sides pink to red, lower sides and belly lighter, with silver reflections. Body covered with very fine, undulating, yellow lines. Fins mostly reddish, except pectorals, which are pale yellow. Iris of eye yellow. Tooth patch on roof of mouth anchor-shaped. Dorsal fin with 10 spines and 13 or 14 rays. Anal fin angulated with eight rays. Tail fin moderately forked.

Distinguishing Characteristics of Similar Species:

Red snapper have nine anal rays, and the back and upper sides are deep red. The iris of the eye is red. Mutton snapper have olive green back, upper sides and upper tail fin lobe. Two blue, oblique stripes are present on the snout and cheek. Iris of eye is red, and the tooth patch on roof of mouth is chevron-shaped. Vermilion snapper have vermillion colored back and upper sides. The dorsal fin has 12 or 13 spines and 10 or 11 rays, and the tooth patch on roof of mouth is rhomboid-

Snappers continued

shaped.

Average Size: 3-5 pounds, 12-18 inches

**Approximate
Maximum Size:** 18 pounds, 30 inches

Food Habits: The silk snapper is a carnivore that feeds on shrimp, crabs, gastropods, and cephalopods.

Spawning Habits: Spawning occurs year-round. The eggs are released into the open sea where they are not guarded.

Angling: Hook and line fishing on or near the bottom with live and cut baits is effective.

Food Quality: Excellent. These fish have been suspected of causing ciguatera poisoning in the tropics.

VERMILION

SNAPPER, *Rhomboplites aurorubens*



Habitat: Vermilion snapper can be found in warm waters along irregular, reef-like bottoms.

Identifying Key Characteristics:

Back and upper sides vermillion in color, lower sides and belly silvery with a reddish tinge. Faint dark lines running forward and down from dorsal fin base, narrow horizontal golden streaks below lateral line. Lower jaw projects slightly beyond the upper jaw, posterior extension of anchor-shaped tooth patch on roof of mouth very broad. Dorsal fin with 12 to 13 weak spines and 10 to 11 rays. Tail forked.

Distinguishing Characteristics of Similar Species:

None of the other snappers have a similar color pattern and all have less than 12 dorsal fin spines.

Average Size: Less than 1 pound, 8-14 inches

Approximate Maximum Size: 7 pounds, 20 inches

Food Habits: This species forages high in the water column on crustaceans, squid, and small fish.

Snappers continued

Spawning Habits: Spawning occurs from April through September and may occur several times during the season.

Angling: These fish are taken by hook and line fishing on or near the bottom with live and cut baits.

Food Quality: Excellent.

Tripletails

TRIPLETAIL, *Lobotes surinamensis*



Habitat: The tripletail inhabits coastal waters and commonly enters muddy estuaries in depths of up to 20 feet. Tripletail can swim or float on their side among floating objects.

Identifying Key Characteristics:

A deep-bodied fish with rounded, symmetrical dorsal and anal fins which extend far back on the body so that the fish appears to have a three-lobed tail. Body color yellow-brown to dark brown

Tripletails continued

with scattered spots and mottling.
Mouth superior with no teeth on roof of mouth.

**Distinguishing
Characteristics of
Similar Species:**

Because of the three-lobed tail, no other fish in the area has a similar appearance.

Average Size: Less than 20 pounds, 10-18 inches

**Approximate
Maximum Size:** 50 pounds, 36 inches

Food Habits: The tripletail feeds on herring, menhaden, anchovies, and eels, as well as shrimp, crabs, and squid.

Spawning Habits: Spawning occurs in spring and summer.

Angling: These fish are known for their strength. They are caught on both natural baits such as live and dead shrimp, as well as artificial lures.

Food Quality: Excellent.

Misc.: The tripletail gets its name from its second dorsal and anal fins, which extend far back on the body so that the fish appears to have three tails.

Grunts

PIGFISH, *Orthopristis chrysoptera*



Habitat: Pigfish can be found in coastal waters over sand and mud bottoms. They are schooling fish and mostly nocturnal.

Identifying Key Characteristics:

Body color blue above, silvery below, each scale with a blue center and bronze edges, sides of head and back with yellow to orange-brown stripes and markings. Dorsal fin with 12-13 spines and 15-16 soft rays. Anal fin with three spines and 13 rays.

Distinguishing Characteristics of Similar Species:

The white grunt has eight or nine anal rays and numerous longitudinal blue and yellow stripes on the head and anterior portion of body. The tomtate has nine anal rays and a dark brown or black spot at base of tail fin. The inside of the mouth of both fish is bright red.

Average Size: 1/2 pound, 6-8 inches

Approximate Maximum Size: 2 pounds, 12 inches

Grunts continued

Food Habits: Pigfish are bottom feeders that prefer to forage on crustaceans, worms, and small fish.

Spawning Habits: Spawning occurs inshore in spring and early summer.

Angling: These fish are mainly taken with light tackle using minnows, small jigs, grubs, and worms while fishing for other types of fish. Pigfish are frequently used as bait for other fish.

Food Quality: Fair. Due to their small size, pigfish are usually released or used for bait.

WHITE GRUNT, *Haemulon plumieri*



Habitat: White grunt can typically be found in 60 to 80 feet of water. They are schooling fish and are often located along the edges of reefs and at the base of structures.

Identifying Key Characteristics: Body oblong and laterally compressed, color grayish to bluish with numerous longitudinal blue and yellow stripes on the head and anterior portion of body. Margin of each scale bronze. Inside of

mouth bright red.

**Distinguishing
Characteristics of
Similar Species:**

Adult white grunts are the only grunts with blue stripes on the head and equally sized scales above and below the lateral line.

Average Size: 1 pound, 8-14 inches

**Approximate
Maximum Size:** 8 pounds, 18 inches

Food Habits: White grunt are bottom feeders that root in the sand and bottom matter near reefs. They feed on worms, shrimp, crabs, mollusks, and small fish.

Spawning Habits: Spawning occurs in the late spring and summer.

Angling: White grunt are taken frequently while bottom fishing with live and cut baits over natural and artificial reefs.

Food Quality: Good. The firm, white flesh of these fish keeps well on ice.

Porgies

KNOBBED PORGY, *Calamus nodosus*



Habitat: Knobbed porgies prefer to live near the sea floor at depths of 90 to 180 feet, over reefs, ledges, and wrecks.

Identifying Key Characteristics:

Body rosy-silver, center of each scale light iridescent blue, snout purplish with bronze spots, and an iridescent blue stripe below eye. Body oval in shape, upper head profile very steep. Canine-like teeth of about equal size located in both jaws, two rows of molar-like teeth in lower jaw and three rows in upper jaw positioned laterally with an irregular inner series of teeth.

Distinguishing Characteristics of Similar Species:

The whitebone porgy does not have an irregular inner series of teeth. The jolthead porgy has cheeks that are brassy with no blue markings, and the head profile is not as steep.

Average Size: 4 pounds, 10-16 inches

Approximate Maximum Size: 6 pounds, 24 inches

Food Habits: The knobbed porgy can consume a variety of prey because they are fast enough to catch small fish and have

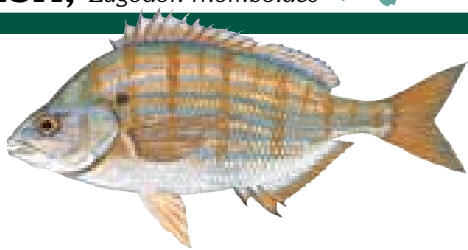
powerful teeth that can crush shells. They prefer bottom-dwelling creatures such as snails, crabs, sea urchins, starfish, clams, and barnacles.

Spawning Habits: Spawning occurs from April through July, with the peak season from May through June. Females lay thousands of eggs, which are scattered in open water and not guarded.

Angling: Knobbed porgy are often taken while fishing over natural and artificial reefs with natural baits such as squid, and live and cut fish.

Food Quality: Good.

PINFISH, *Lagodon rhomboides*



Habitat: Pinfish are a coastal and inshore species that travel in schools, often over rocky bottoms and around docks and pilings. They may also enter brackish water or freshwater.

Identifying Key Characteristics:

Body silver, bluish-silver on sides with six dark, diffused vertical bars separated by yellow longitudinal stripes with a dark spot near the origin of the lateral line. Anal fin yellow with a broad, light blue margin. Posterior nostril oval-

Porgies continued

shaped. Eight broad, incisor-like teeth are present in both jaws, which are forward-directed and deeply notched.

Distinguishing Characteristics of Similar Species:

Deeply notched incisor-like teeth coupled with the dark spot near the origin of the lateral line separate this species from other similar species.

Average Size: 1/4 - 1/2 pound, 6-8 inches

**Approximate
Maximum Size:** 2 pounds, 10 inches

Food Habits: Pinfish feed on crustaceans, mollusks, worms, and occasionally small fish.

Spawning Habits: During the winter, pinfish move out of coastal waters into offshore waters to spawn.

Angling: Known as bait stealers, these fish are generally not targeted by fishermen but are taken regularly and used for bait.

Food Quality: Fair. These fish are infrequently kept unless for bait because of their small size.

Misc.: Pinfish are named for the small spines on their fins that stick fingers and hands just like pins or needles.

RED PORGY, *Pagrus pagrus*



Habitat: Red porgy are found along the continental shelf of North and South America.

Identifying Key Characteristics:

Back and upper sides pinkish-silver with an indistinct yellow spot on each scale of the upper half of the body, lower sides and belly with reddish tints, a wedge of yellow between eyes and some yellow on snout and upper lip. Pectoral fin pink and tail fin pink with bright red margin. Posterior nostril oval to oblong and larger than the anterior pore. Canine-like teeth in anterior position of both jaws, four in upper and six in lower, two rows of molar-like teeth on each side. Dorsal fin with 12 spines and 10 soft rays. Anal fin with eight soft rays.

Distinguishing Characteristics of Similar Species:

The knobbed and whitebone porgy's posterior nostrils are slit-like. The body colors of scup and sheepshead are not pink. Sheepshead have anterior teeth that are broad and flattened.

Average Size: 8-10 pounds, 10-15 inches

Porgies continued

**Approximate
Maximum Size:** 17 pounds, 18 inches

Food Habits: Red porgy are carnivorous bottom feeders that travel in schools, migrating to find food. They prefer crustaceans, mollusks, and small fish.

Spawning Habits: Red porgy are hermaphroditic, beginning life as a female, then developing into males. Spawning occurs in late winter and early spring.

Angling: These fish are often caught over natural and artificial reefs with natural baits such as squid, and live and cut fish.

Food quality: Good.

SCUP, *Stenotomus chrysops*



Habitat: Scup are a schooling species common in offshore waters in winter at depths ranging from 200 to 600 feet.

**Identifying Key
Characteristics:** Body deep, color silver with no dark markings. Front teeth strongly flattened, narrow, in close-set bands, teeth in outer band a little enlarged, compressed and narrower at base, two rows of molar-like teeth positioned laterally in

upper and lower jaws. Dorsal fin with 12 spines preceded by one forward-directed spine, and 12 soft rays.

**Distinguishing
Characteristics of
Similar Species:**

The body color of the red porgy is pink, and the anterior teeth in both jaws are canine-like, with two rows of molar-like teeth positioned laterally. The knobbed porgy has a posterior nostril that is slit-like. The anterior teeth in both jaws are canine-like, and the upper jaw has three rows of molar-like teeth. The body color of the sheepshead is gray with five or six dark, vertical bars, eight broad, incisor-like teeth in each jaw, and several molar-like teeth. The pinfish has deeply notched, incisor-like teeth and a dark spot near the origin of the lateral line.

Average Size: 1/2 pound, 6-8 inches

**Approximate
Maximum Size:** 4 pounds, 14 inches

Food Habits: Scup feed primarily on crabs, shrimp, worms, sand dollars, snails, and young squid although they will sometimes eat small fish. Scup usually browse and nibble over hard bottoms.

Spawning Habits: Spawning occurs from May through August. Eggs are small and buoyant and hatch within two days.

Angling: Scup are caught still and drift fishing on or near the bottom with squid and live and cut baits.

Food Quality: Good.

SHEEPSHEAD, *Archosargus probatocephalus*



Habitat: Sheepshead frequent bays and estuaries and areas along the shoreline throughout the year. They commonly enter brackish water in coastal rivers and prefer obstructions such as pilings, piers, and rocks.

Identifying Key Characteristics:

Body nearly oval in shape, gray in color with five or six dark vertical bars and one on nape, no dark spot near origin of lateral line. Four broad, incisor-like teeth on each side of the jaw, their edges straight or only slightly notched, several molar-like teeth present. Dorsal fin has 12 spines and 11 soft rays, second anal spine very strong.

Distinguishing Characteristics of Similar Species:

The black drum has 10 to 13 pairs of small barbels along the inner edges of the lower jaw, and the mouth is inferior and lacks molar-like teeth. Body scales are large.

Average Size: 1 pound, 10-16 inches

Approximate Maximum Size: 21 pounds, 24 inches

Food Habits: Sheepshead consume mollusks and

crustaceans, often traveling in schools. They are browsing feeders that forage around pilings and may be located around jetties, over rocky bottoms, and in other places where they can find oysters and mussels.

Spawning Habits: Sheepshead spawn in early spring. Adults migrate to offshore waters to spawn. Females may produce 1,100 to 250,000 eggs per spawning event. The eggs are buoyant and hatch within 30 hours.

Angling: Sheepshead are caught almost exclusively by still fishing with fiddler crabs, mussels, and shrimp around structures such as rock jetties, pilings, and reefs. These fish do not attack the bait but nibble and gently mouth it, requiring the angler to anticipate when to set the hook.

Food Quality: Excellent.

Drums

ATLANTIC

CROAKER, *Micropogonias undulatus*



Habitat: The Atlantic croaker is a bottom-dwelling, estuarine-dependent fish that becomes oceanic during spawning. They prefer mud, sand and shell bottoms, as well as areas around rocks, jetties, piers, and bridges.

Identifying Key Characteristics:

Body pinkish-silver, back and upper sides with pattern of vertical bars composed of irregular black spots. Chin with five pores and three to five pairs of small barbels along inner edges of lower jaw.

Distinguishing Characteristics of Similar Species:

Black drum have 10 to 13 pairs of barbels on chin. Other similar species do not have barbels on chin or oblique dark streaks on back and sides.

Average Size: 1 1/2 pounds, 8-14 inches

Approximate Maximum Size: 5 pounds, 24 inches

Food Habits: Adult croaker feed on detritus as well as larger invertebrates and fish. Sensory barbels allow the Atlantic croaker to find food on the bottom.

Drums continued

- Spawning Habits:** Spawning occurs at sea in winter and spring (November is the peak month) when croaker migrate to deeper, warmer waters.
- Angling:** Atlantic croaker are caught by bottom fishing with live and cut baits fished on or near the bottom.
- Food quality:** Excellent.
- Misc.:** The common name “croaker” is derived from the deep croaking noises made when the fish contracts specialized muscles against its swim bladder. The resonant sound is amplified and can be heard from quite a distance.

BLACK DRUM, *Pogonias cromis*



- Habitat:** Black drum are inshore bottom fish. They favor sandy bottoms in salt or brackish waters near jetties, breakwaters, bridges, pier pilings, clam and oyster beds, channels, estuaries, bays, high marsh areas, and shorelines. They are common in all inshore and shallow coastal waters year-round, but are most abundant February through July.

Drums continued

Identifying Key

Characteristics: Deep-bodied fish, silvery-gray in color. Young fish with four or five black vertical bars on sides that disappear with age. Body scales large and comb-like, lateral line extending to hind margin of tail fin. Mouth inferior and nearly horizontal. Chin with 10 to 13 pairs of small barbels along inner edges of lower jaw.

Distinguishing Characteristics of Similar Species:

Red drum have distinct, ocellated spots near tail fin and do not have barbels on chin. Atlantic croaker are smaller fish with dark, oblique streaks on upper sides and three to five pairs of chin barbels. Sheepshead have a nearly oval body, eight broad, incisor-like teeth, and no barbels on chin.

Average Size: 5-10 pounds, 14-24 inches

**Approximate
Maximum Size:** 113 pounds, 50 inches

Food Habits: Black drum feed on crustaceans and mollusks with a preference for blue crabs, shrimp, oysters, and squid. They locate food with their chin barbels and crush and grind shells with their teeth.

Spawning Habits: Adults school and migrate in the spring to bay and river mouths for the spawning season.

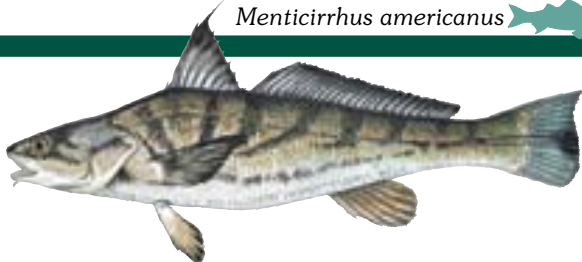
Angling: Black drum frequently are caught by bottom fishing around natural, rocky outcroppings, artificial reefs, and other irregular bottoms with live and cut baits including crabs, clams, mussels, and shrimp.

Food quality: Good. Smaller fish (less than 20 pounds) are of good quality. Larger fish may be coarse, and they frequently contain parasites.

Misc.: This is the largest member of the drum family. Their drumming noise is voluntary and associated with locating and attracting mates.

SOUTHERN KINGFISH,

Menticirrhus americanus



Habitat: Found year-round, but scarce during the winter months, kingfish are abundant in inlets and shallow coastal waters, and common along beaches.

Identifying Key Characteristics:

Back and sides are silvery gray with seven or eight vertical, oblique, dark bars; belly white. Margins of fins dark, anal and tail fins often yellowish, anal fin with one spine. Mouth small and inferior with teeth in small broad bands in both jaws. Chin with a single, short, rigid barbel.

Distinguishing Characteristics of Similar Species:

The gulf kingfish does not have dark sidebars. Other similar species do not have a chin barbel and have more than one anal fin spine.

Drums continued

Average Size: 1/2 -1 pound, 6-10 inches

**Approximate
Maximum Size:** 3 pounds, 12 inches

Food Habits: Like other members of the drum family, the kingfish uses a chin barbel to probe the bottom for worms, crabs, and shrimp.

Spawning Habits: Southern kingfish spawn from April to August when the females scatter their eggs offshore.

Angling: Southern kingfish are caught primarily surf fishing with live and cut baits including worms, shrimp, clams, fish.

Food quality: Excellent. Southern kingfish are often pan-fried.

Misc.: The southern kingfish is also known as whiting.

RED DRUM, *Sciaenops ocellatus*



Habitat: Red drum are abundant in all inshore and shallow coastal waters year-round, but are most abundant in May through October. They can tolerate saltwater as well as freshwater and prefer sand and mud bottoms.

Identifying Key Characteristics:

Body iridescent silvery-gray with a copper cast, darker above. One or more ocellated spots present on upper sides from below soft portion of the dorsal fin to the base of the tail fin. Mouth inferior, nearly horizontal, teeth set in bands in both jaws.

Distinguishing Characteristics of Similar Species:

Other croakers and drums do not have large black spots on tail or on upper sides.

Average Size: 2-5 pounds, 12-24 inches

Approximate Maximum Size: 94 pounds, 60 inches

Food Habits: This bottom fish uses its senses of sight and touch and its down-turned mouth to forage near the bottom. In shallow water, the red drum can often be seen browsing head-down with its tail slightly out of water (this is called "tailing"). In summer and fall, adults feed on crabs, shrimp, and small fish. During the spring, they feed on menhaden, mullet, pinfish, spot, Atlantic croaker, and flounder.

Spawning Habits: Red drum spawn in the fall. Shortly before spawning, males change color and become dark red or bright bluish gray above the lateral line. Hours before mating, both males and females chase and butt each other while drumming loudly.

Angling: Young red drum (3 to 15 pounds) are taken by drift or still fishing on the bottom and by fly-fishing on flats. Favorite baits include shrimp, mud

Drums continued

minnows, jigs, plugs, spoons, and streamer flies. Older and larger red drum are taken from the beach just past the breakers with live and cut baits.

Food Quality: Excellent. Fish less than 10 pounds are excellent. Larger fish may be coarse, of poor quality, and frequently contain parasites.

Misc.: The red drum is also known as the redfish or channel bass.

SILVER PERCH, *Bairdiella chrysoura*



Habitat: Silver perch are inshore fish and are most common in bays, tidal creeks, small rivers, and inlets near estuaries.

Identifying Key Characteristics:

Body moderately deep and compressed. Back grayish-green in color fading to silver or white on sides and belly, faint, longitudinal, dotted lines present on sides. Anal and tail fins tinged in yellow. Mouth terminal. Preopercular with a few strong spines. Tail fin truncate.

Distinguishing Characteristics of Similar Species:

Similar species either do not have a terminal mouth, or they lack spines on the preopercular margin. Seatrout have

two large canine teeth in upper jaw.
Atlantic croaker have barbels on chin.

Average Size: Less than 1/2 pound, 6-8 inches

**Approximate
Maximum Size:** 1 pound, 12 inches

Food Habits: Silver perch favor crustaceans, worms,
and small fish.

Spawning Habits: Spawning occurs inshore during April
and May.

Angling: These fish are usually caught on or near
the bottom while still fishing with live
and cut natural baits such as fish, clams,
shrimp, and worms.

Food Quality: Good. Silver perch are often pan-fried.

SPOT, *Leiostomus xanthurus*



Habitat: Spot can be found in estuaries and
coastal saltwater, generally roaming
over sandy and muddy bottoms.

Identifying Key Characteristics:

Body silver with 12 to 15 oblique dark
streaks extending to below lateral line.
A dark blotch about the size of the eye
located behind the upper end of the gill
slit. Mouth small and inferior.

Drums continued

Distinguishing Characteristics of

Similar Species: Body coloration and the lack of chin barbels make this fish easy to separate from similar species.

Average Size: 1/2 pound, 6-8 inches

**Approximate
Maximum Size:** 2 pounds, 10 inches

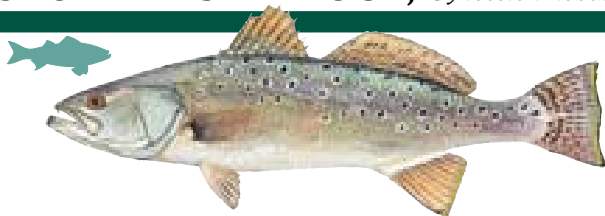
Food Habits: Spot feed on small crustaceans, detritus, worms, and small fish.

Spawning Habits: Spot spawn at sea in fall and winter.

Angling: Spot are taken from coastal fishing piers particularly during the fall months when larger adults migrate from northern areas. These fish are often caught near the bottom with shrimp, clams, and cut bait.

Food Quality: Excellent. Spot are generally pan-fried.

SPOTTED SEATROUT, *Cynoscion nebulosus*



Habitat: Spotted seatrout are an inshore, bottom-dwelling species inhabiting shallow bays, estuaries, and rivers. They are most abundant in September through July.

Identifying Key Characteristics:

Dark gray above with bluish reflections and numerous round black spots irregularly scattered on back and sides, also extending to soft part of dorsal and tail fins. Two large, canine-like teeth at tip of upper jaw, remaining teeth small, and those in lower jaw gradually increasing in size posteriorly. Chin without barbels or pores. Anterior dorsal fin with nine or 10 spines and second dorsal with one spine and 25 to 28 rays, soft portion of dorsal fin without scales.

Distinguishing Characteristics of Similar Species:

The weakfish has small dark spots on back and sides that form faint, irregular, oblique streaks along the scale row. Up to one-third of the soft portion of the dorsal fin is covered with small scales. The banded drum has a shorter body with dark vertical bars. The mouth and up to one-third of the soft portion of the dorsal fin is covered with small

Drums continued

scales. The mouth is strongly oblique, and second anal spine is strong.

Average Size: 1-2 pounds, 12-20 inches

**Approximate
Maximum Size:** 15 pounds, 36 inches

Food Habits: Spotted seatrout are predatory, feeding primarily on shrimp and small fish, but also consuming mullet, menhaden, and silversides.

Spawning Habits: Spawning occurs at night in coastal bays, sounds, and estuaries and around barrier islands from May through August.

Angling: Spotted seatrout are taken by trolling, jigging, surfcasting, and fly-fishing with both natural and artificial baits. Live shrimp is the best bait.

Food Quality: Excellent.

WEAKFISH, *Cynoscion regalis*



Habitat: Weakfish prefer sandy bottoms. They are found in shallow waters along shores and in large bays and estuaries including salt marsh creeks and sometimes in river mouths.

**Identifying Key
Characteristics:** Body greenish above and silvery below, back and sides with many small, irregular, black spots forming oblique

wavy streaks on sides. Fins yellow with the pelvic and anal fins brighter yellow. Mouth large and superior with two large, canine-like teeth at the tip of the upper jaw. No chin barbels or pores.

**Distinguishing
Characteristics of
Similar Species:**

Spotted seatrout have dark spots on back and upper sides that are much larger and more distinct, and they do not form streaks. The fins are charcoal in color.

Average Size: 1-2 pounds, 10-15 inches

**Approximate
Maximum Size:** 18 pounds, 32 inches

Food Habits: Weakfish are omnivorous, feeding on crabs, shrimp, and other crustaceans, as well as mollusks and small fish such as herring and menhaden. Weakfish forage at different depths and levels and are able to adapt to local food conditions.

Spawning Habits: Spawning occurs nearshore and in estuaries along the coast from May through October. The released eggs drift along the surface and hatch within two days.

Angling: These fish are taken by casting, jigging, or still fishing with natural or artificial baits.

Food Quality: Excellent. The flesh is soft and has a tendency to spoil quickly.

Misc.: Weakfish are so named because of the ease with which a hook tears from their mouths.

Spadefish

ATLANTIC SPADEFISH,

Chaetodipterus faber



Habitat: Atlantic spadefish can be found from May through November in oceanic waters nearshore. They are abundant in shallow coastal waters, from sandy beaches to reefs and harbors, and are often found in large schools close to natural or man-made structures. Young Atlantic spadefish can be found swimming at an angle, even parallel to the surface, to disguise themselves as debris.

Identifying Key Characteristics:

Body almost as deep as long, body color varies from grayish to yellowish with four to six dark vertical bars. Mouth very small. Anal, tail and second dorsal fins pointed.

Distinguishing Characteristics of Similar Species:

Black drum have body scales that are large. The mouth is inferior and nearly horizontal, and the chin has 10 to 13 pairs of small barbels along inner edges of lower jaw. Sheepshead have a nearly oval body shape that is gray in color with five or six dark, vertical bars. There are four broad, incisor-like teeth on each side of the jaw with their edges

Spadefish continued

straight or only slightly notched. Several molar-like teeth are present.

Average Size: 6 pounds, 12-18 inches

**Approximate
Maximum Size:** 20 pounds, 36 inches

Food Habits: The spadefish is a bottom feeder, preferring shellfish, crustaceans, worms, mollusks, and jellyfish.

Spawning Habits: Spawning occurs in spring and summer.

Angling: These fish are known for their strong fighting ability. They are often caught using a small gold hook baited with pieces of clam, shrimp, or cannon ball jellyfish.

Food Quality: Excellent. These fish have firm white flesh that has a delicate flavor.

Misc.: Spadefish possess such strong schooling behavior that an entire school may follow a hooked fish.

Barracudas

GREAT BARRACUDA, *Sphyraena barracuda*



Habitat: Young great barracuda live in inshore areas, while adults are found from inshore channels to the open ocean. They are found in bays, inlets, and coastal rivers where saltwater and freshwater meet, as well as around reefs, wrecks, piers, and sandy or grassy flats. They prefer shallow areas and appear to move inshore in summer and offshore in fall and winter.

Identifying Key Characteristics:

Body elongated, steel gray above with dark bars on upper sides and several inky blotches of various sizes and position on posterior portion of lower sides. Large head with a long, pointed snout. Mouth superior with strong, pointed teeth of unequal size in both jaws. Area between eyes flat to concave.

Distinguishing Characteristics of Similar Species:

No other barracuda has inky blotches on sides.

Average Size: 5-20 pounds, 24-36 inches

Approximate Maximum Size: 85 pounds, 72 inches

Barracudas continued

Food Habits: The great barracuda is carnivorous and is attracted to shiny objects or flashes as well as movement. They feed by sight rather than by smell.

Spawning Habits: Spawning is prompted by increased water temperature. Mating occurs between late spring and early fall when water temperature is above 70 °F.

Angling: These fish are frequently caught by offshore anglers with plugs, spoons, or natural and artificial baits.

Food Quality: Good. These fish are generally not eaten because they are suspected of causing ciguatera poisoning in tropical areas.

Misc.: The great barracuda is potentially dangerous to swimmers because of its tendency to strike at flashing objects and its characteristically large teeth.

Wrasses

HOGFISH, *Lachnolaimus maximus*



Habitat: Hogfish are most commonly associated with reefs and rocky outcroppings.

Identifying Key Characteristics: Body pink, reddish-brown or port wine in color with scales on back edged

Wrassess continued

in yellow and a black spot at rear of dorsal fin. Dorsal profile of head rather deep. Large canine teeth on upper and lower jaws. Dorsal fin continuous with 14 spines of which the first three are extended into long filaments.

Distinguishing Characteristics of Similar Species:

Nothing occurs in area that is of similar appearance.

Average Size: 8-10 pounds, 20-30 inches

**Approximate
Maximum Size:** 19 pounds, 40 inches

Food Habits: The hogfish feeds on small fish, shellfish, and crustaceans.

Spawning Habits: Spawning takes place from May through July.

Angling: These fish are caught both in open water areas and on natural and artificial reefs, primarily on or near the bottom. They feed on mollusks, crabs, and sea urchins, but baits such as live and dead squid, shrimp, and fish are effective.

Food Quality: Excellent.

Mackerels

ATLANTIC BONITO, *Sarda sarda*



Habitat: Atlantic bonito frequent both brackish water and saltwater. They are a

Mackerels continued

schooling and migratory species.

**Identifying Key
Characteristics:**

Back and upper sides bluish-green with nine to 12 oblique, dark, wavy lines. Lower sides and belly silver. Upper jaw extends to posterior margin of eye. Dorsal fins almost united.

**Distinguishing
Characteristics of
Similar Species:**

The upper jaws of all similar fishes do not extend to posterior margin of eye. Little tunny have wavy lines on upper back.

Average Size: 2-10 pounds, 18-25 inches

**Approximate
Maximum Size:** 18 pounds, 36 inches

Food Habits: Adult Atlantic bonito prey on small schooling fish and will also eat squid, mackerel, menhaden, anchovies, silversides, and shrimp. They can be cannibalistic.

Spawning Habits: Spawning occurs in coastal waters from January through July. The female will release 450,000 to 6 million eggs, depending on her size.

Angling: These fish are mainly taken off South Carolina during the spring months by trolling artificial and live baits near the surface.

Food Quality: Excellent.

BLACKFIN TUNA, *Thunnus atlanticus*



Habitat: Blackfin tuna are a pelagic, schooling fish found in warm waters.

Identifying Key Characteristics:

Body dark metallic blue on back, lower sides silvery-gray and belly milky white. Second dorsal and anal fins dark with a silver luster, finlets uniformly dark with only a trace of yellow, may have white edges. Pectoral fins long, about 30 percent of fork length.

Distinguishing Characteristics of Similar Species:

Albacore have pectoral fins that reach beyond the anal fin, and the tail fin has a white margin. Bigeye tuna have no markings on upper or lower body and pectoral fins that reach the origin of the second dorsal fin. Finlets are yellow with black margin. Bluefin tuna have a first dorsal fin that is either yellow or blue, a second dorsal fin that is reddish-brown, and an anal fin and finlets that are dusky yellow edged in black. Pectoral fins are very short, less than 80 percent of head length. Yellowfin tuna have bright yellow dorsal and anal fins, and dorsal and anal finlets are bright yellow with black margins. The body usually has 20 broken, nearly

Mackerels continued

identical lines.

Average Size: 10-30 pounds, 24-30 inches

**Approximate
Maximum Size:** 45 pounds, 36 inches

Food Habits: This species consumes small fish, crustaceans, and plankton, often feeds near the surface, and frequently forms large mixed schools with skipjacks.

Spawning Habits: Spawning occurs well offshore from April to November.

Angling: Blackfin tuna are known to be excellent light-tackle gamefish. They are taken primarily by trolling natural and artificial baits near the surface.

Food Quality: Excellent.

BLUEFIN TUNA, *Thunnus thynnus*



Habitat: Bluefin tuna can be found offshore in temperate waters.

**Identifying Key
Characteristics:** Back dark blue or black, lower sides and belly silvery marked with gray spots and bands. First dorsal fin either yellow or blue, second dorsal reddish-brown, anal fin and finlets dusky yellow edged in black. Pectoral fins very short, less than 80 percent of head length, do not reach the posterior margin of the second dorsal fin.

Mackerels continued

Distinguishing Characteristics of Similar Species:

Albacore have pectoral fins that reach beyond the anal fin, and the tail fin has a white margin. Bigeye tuna have no markings on upper or lower body and pectoral fins that reach the origin of the second dorsal fin. Finlets are yellow with black margin. Blackfin tuna have a second dorsal fin and anal fin that are dark with a silver luster. Finlets are uniformly dark with a trace of yellow and may have white edges. Pectoral fins reach origin of second dorsal fin. Yellowfin tuna have bright yellow dorsal and anal fins, and dorsal and anal finlets are bright yellow with black margins. The body usually has 20 broken, nearly identical lines.

Average Size: 300-1000 pounds, 16 -79 inches

**Approximate
Maximum Size:** 1500 pounds, 120 inches

Food Habits: The bluefin tuna's diet consists of squid, eels, and crustaceans, as well as schooling fish such as mackerel, flyingfish, herring, whiting, and mullet. They are schooling fish and congregate by size, swimming either single file (soldier formation) or in an arc (hunter formation).

Spawning Habits: During spawning, a large female may release 25 million or more eggs.

Angling: Bluefin tuna are taken still fishing and trolling with live and artificial baits. They are known for their strength, speed, and tremendous size.

Mackerels continued

Food Quality: Excellent. Bluefin tuna are known for their flavorful flesh. They are the largest member of the mackerel family, having enormous commercial value, especially in large sizes. The largest price paid for a single Atlantic bluefin to date was US \$90,000 at the Tokyo market, making this species the most economically valuable wild animal on the planet.

Misc.: Bluefin are endothermic and able to maintain their body temperature up to 18 °F above the surrounding water, which makes them tremendously adapted to temperate and cold waters. They also retain 98 percent of muscular heat, may have the highest metabolism of any known fish, and are among the fastest and most wide-ranging animals on earth. When hunted or hunting, they can accelerate to 50 miles per hour.

KING MACKEREL, *Scomberomorus cavalla*



Habitat: King mackerel are primarily an open-water, migratory species, preferring warm waters. They are often found around wrecks, buoys, reefs, ocean piers, inlets, and other areas where food is abundant, but they tend to avoid highly turbid waters.

Mackerels continued

Identifying Key

Characteristics: Back iridescent bluish-green, sides silver, first dorsal fin lightly and uniformly pigmented with 14 to 16 spines. Lateral line abruptly curves downward below second dorsal fin. Snout much shorter than rest of head, maxilla exposed becoming vertical behind posterior margin of eye.

Distinguishing

Characteristics of

Similar Species: Lateral line of Spanish mackerel does not abruptly curve downward under second dorsal fin. First dorsal fin has 17 to 19 spines, and the anterior portion of the first dorsal fin is black. Cero have spots and one or two longitudinal stripes on sides, and the pectoral fins are covered with scales. Wahoo have 24 to 26 spines in the first dorsal fin. The snout is as long as the rest of the head, and there are numerous vertical stripes on sides of body.

Average Size: 6-10 pounds, 24-42 inches

**Approximate
Maximum Size:** 90 pounds, 60 inches

Food Habits: Mackerel feed mainly on fish, as well as on a smaller quantity of shrimp and squid.

Spawning Habits: Mackerel spawn from April through November, and activity peaks in late summer and early fall. A large female may spawn 1 to 2.5 million eggs.

Angling: King mackerel are taken primarily by trolling and drift fishing with natural baits and artificial lures. They are

occasionally taken very close to shore from fishing piers.

Food Quality: Excellent.

SPANISH MACKEREL, *Scomberomorus maculatus*



Habitat: Spanish mackerel are abundant in coastal waters from April through October. They prefer open water but are sometimes found over deep rocky areas and reefs as well as in shallow-water estuaries. They form large, fast-moving schools that migrate great distances along the shore, staying in waters with temperatures above 68 °F.

Identifying Key Characteristics:

Back bluish-green, sides silver with numerous yellow to bronze spots and no streaks, anterior portion of the first dorsal black. Lateral line gradually curving down toward caudal peduncle. Two scarcely separated dorsal fins, first dorsal fin with 17 to 19 spines.

Distinguishing Characteristics of Similar Species:

King mackerel have a lateral line that abruptly curves downward under second dorsal fin. The first dorsal fin has 14 to 16 spines and is uniformly dusky gray in color. Young king mackerel have yellowish-bronze spots similar to adult

Mackerels continued

Spanish mackerel. Cero have spots and one or two longitudinal stripes on sides, and the pectoral fins are covered with scales. Wahoo have 24 to 26 spines in the first dorsal fin, a snout as long as rest of head, and numerous vertical stripes on the sides of its body.

Average Size: 2-3 pounds, 12-20 inches

**Approximate
Maximum Size:** 13 pounds, 24 inches

Food Habits: Spanish mackerel feed on small fish, shrimp, and squid.

Spawning Habits: Spanish mackerel spawn offshore from April through September where females release between 500,000 and 1.5 million eggs.

Angling: These fish are taken primarily by trolling and drift fishing with natural baits and artificial lures. They are regularly taken very close to shore from fishing piers.

Food Quality: Excellent.

LITTLE TUNNY, *Euthynnus alletteratus*



Habitat: Little tunny are not as migratory as other tuna species and can be found regularly in inshore waters as well as offshore. They are usually in large schools.

Identifying Key

Characteristics:

Back bluish-green with scattering of dark spots resembling fingerprints between the pectoral and pelvic fins, wavy, worm-like markings in a well-defined area above the lateral line and posterior to the middle of the dorsal fin. Two dorsal fins separated by a narrow space, first dorsal fin much higher anteriorly than second dorsal fin, followed by a series of eight finlets.

Distinguishing Characteristics of

Similar Species:

No other tunas have similar body markings.

Average Size:

5-15 pounds, 18-24 inches

Approximate

Maximum Size:

35 pounds, 36 inches

Food Habits:

Little tunny feed on squid, crustaceans, fish larvae, and large numbers of smaller fish, especially herring.

Spawning Habits:

Spawning occurs from April through November.

Angling:

Little tunny are caught by trolling and casting with both natural and artificial baits. They are often located by watching for birds feeding near the surface.

Food Quality:

Poor. The flesh of these fish is very dark and strongly flavored.

Mackerels continued

SKIPJACK TUNA, *Katsuwonus pelamis*



Habitat: Skipjack tuna are typically found in deep coastal and oceanic waters and can form schools composed of 50,000 or more fish.

Identifying Key Characteristics:

Body elongated, rounded, and lacks scales, except along lateral line. Back purplish-blue, lower sides and belly silver with four to six conspicuous, longitudinal, dark stripes. Two dorsal fins separated by a small interspace followed by seven to nine finlets. Distinctive caudal keels.

Distinguishing Characteristics of Similar Species:

Bonito have longitudinal stripes on back. Other tuna do not have longitudinal stripes.

Average Size: 5-15 pounds, 16-20 inches

Approximate Maximum Size: 45 pounds, 36 inches

Food Habits: Skipjack feed near the surface and have a diet consisting of herring, squid, small mackerel, bonito, shrimp, and crustaceans.

Spawning Habits: Spawning occurs from spring into early fall.

Angling: As these fish feed near the surface on small fish, they are often located by

Mackerels continued

watching for feeding birds. These fish are caught by trolling and casting with both natural and artificial baits.

Food Quality: Excellent. These fish are sold both fresh and canned.

WAHOO, *Acanthocybium solandri*



Habitat: Wahoo gather around banks and pinnacles and can be occasionally found around wrecks and deeper reefs where smaller fish are abundant.

Identifying Key Characteristics:

Body very elongated, back iridescent bluish-green with numerous dark vertical bars extending below the lateral line. Snout about as long as the rest of the head with very strong cone-shaped teeth. First dorsal fin with 24 to 26 spines.

Distinguishing Characteristics of Similar Species:

King mackerel have a much shorter snout and no regular vertical bars extending below the lateral line.

Average Size: 10-30 pounds, 36-48 inches

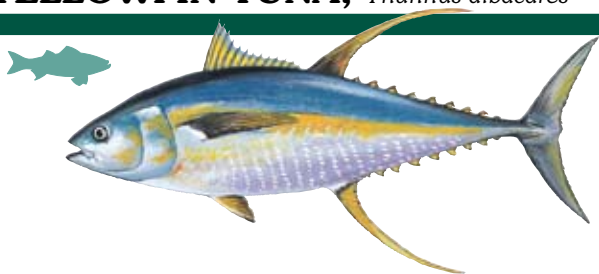
Approximate Maximum Size: 160 pounds, 60 inches

Food Habits: Wahoo feed on porcupinefish, flyingfish, herring, scad, laternfish, small mackerel and tuna, as well as squid.

Mackerels continued

- Spawning Habits:** Spawning takes place from June through August. A single female may release up to six million eggs in each spawning season.
- Angling:** Wahoo are known for their fast-swimming, strong fighting, and jumping ability. They are generally taken while trolling, live bait fishing, and kite fishing for other offshore species.
- Food Quality:** Excellent. Wahoo have white, firm flesh considered by many anglers to be one of the best tasting of all fish.
- Misc.:** Wahoo were originally plentiful off the Hawaiian island of Oahu, once commonly spelled "Wahoo," which accounts for the fish's name.

YELLOWFIN TUNA, *Thunnus albacares*



- Habitat:** Yellowfin tuna prefer deep, warm, temperate oceanic waters, but have been known to come fairly close to shore when there are warm currents.

Identifying Key Characteristics:

Back dark blue with 20 broken, nearly vertical lines on belly. Dorsal and anal fins bright yellow, dorsal and anal finlets bright yellow with black margins. Two dorsal fins separated only by a narrow

space. Large specimens with very long second dorsal and anal fins.

**Distinguishing
Characteristics of
Similar Species:**

Albacore have pectoral fins that reach beyond the anal fin, and the tail fin has a white margin. Bigeye tuna have no markings on upper or lower body, pectoral fins that reach the origin of the second dorsal fin, and yellow finlets with black margins. Bluefin tuna have a first dorsal fin that is either yellow or blue, a second dorsal fin that is reddish-brown, and an anal fin and finlets that are dusky yellow edged in black. Pectoral fins are very short, less than 80 percent of head length. Blackfin tuna have a second dorsal fin and anal fin that are dark with a silver luster. Finlets are uniformly dark with a trace of yellow and may have white edges. Pectoral fins reach origin of second dorsal fin.

Average Size: Less than 100 pounds, 30-40 inches

**Approximate
Maximum Size:** 400 pounds, 72 inches

Food Habits: The yellowfin's diet depends largely on local abundance, and includes flyingfish, other small fish, squid, and crustaceans.

Spawning Habits: Spawning occurs throughout the year and peaks during the summer months.

Angling: These fish are caught primarily trolling with strip baits, artificial baits, and live baits such as small fish and squid. Chumming is effective.

Food quality: Excellent.

Swordfishes & Billfishes



SWORDFISH,

Xiphias gladius

Habitat: Swordfish are found in tropical and subtropical waters throughout the world's oceans and are highly migratory. They frequent oceanic and continental shelf waters from the surface to the deep submarine canyons, often exceeding 3,000 feet in depth.

Identifying Key Characteristics:

Body rounded, back and upper sides brownish black, lower sides and belly light brown. Snout ends in a long, flattened sword. Scales absent in adults. Single, strong, lateral keel present on each side of caudal peduncle. Pelvic fins absent.

Distinguishing Characteristics of Similar Species:

The bills of other billfish are rounded in cross section, not flattened. Pelvic fins are present in other species and there are two keels on each side of the caudal peduncle.

Average Size: 75 pounds, 68 inches

Approximate Maximum Size: 1,200 pounds, 170 inches

Food Habits: Adult swordfish are opportunistic feeders and are reported to utilize their

Swordfishes & Billfishes continued

bill to kill or stun their prey. They feed on squid, fish, and crustaceans.

Spawning Habits: Swordfish spawn near the surface of tropical and subtropical waters in late fall and winter. Immature fish remain in the tropics for the first few years and then migrate northward.

Angling: Swordfish are caught primarily at night by deep-drifting natural baits, such as squid. Many fisherman consider the landing of a swordfish as the highest achievement in fishing.

Food Quality: Excellent. Considered by many to be one of the best tasting saltwater fish.

BLUE MARLIN, *Makaira nigricans*



Habitat: Blue marlin prefer deeper, offshore waters, usually near underwater structures such as canyons, drop-offs, and ridges.

Identifying Key Characteristics: Body dark blue above, lighter below, with dark vertical stripes along sides. Body covered with densely imbedded scales ending in one or two long acute spines. Height of anterior portion of first dorsal fin less than body depth, lateral line complex but inconspicuous and hard to see in large specimens. Anus close to origin of first anal fin.

Swordfishes & Billfishes continued

Distinguishing Characteristics of Similar Species:

Sailfish have a first dorsal fin that is sail-like, and height is much greater than body depth. They are covered with numerous black spots. The pelvic fins are very long, reaching almost to anus, and the lateral line is single, not reticulated. The anterior portion of the white marlin's first dorsal fin is nearly equal in height to body depth, and the tips of the first dorsal, first anal, and pectoral fins are rounded. The lateral line is single, not reticulated. Longbill spearfish have a first dorsal fin that is slightly higher than the body depth, and the posterior part of fin is also high throughout length. The anus is placed well in front of origin of first anal fin. Lateral line is single and prominent.

Average Size: 150-400 pounds, 70-100 inches (fork length)

**Approximate
Maximum Size:** 1400 pounds, 120 inches (fork length)

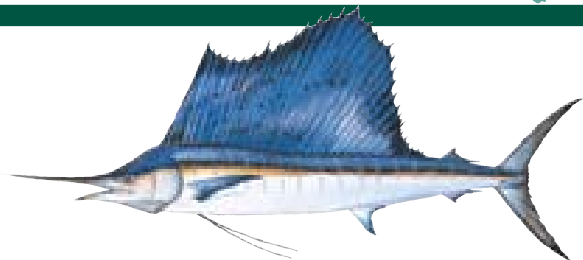
Food Habits: Blue marlin feed on squid and fish such as tuna and mackerel. They are solitary and hence do not form schools.

Spawning Habits: Spawning occurs in the open sea.

Angling: Blue marlin are one of the most highly sought after game fish. They are known for their fighting ability, tail walking, and other acrobatics. These fish are caught both by trolling with natural and artificial baits and by live bait fishing.

Food Quality: Good. Blue marlin are often smoked but generally released alive by anglers.

SAILFISH, *Istiophorus platypterus*



Habitat: Sailfish are typically found in warm offshore waters.

Identifying Key Characteristics:

Body dark blue above to silver below, covered with sparsely imbedded scales having blunt points. Lateral line simple and conspicuous. First dorsal fin sail-like, considerably higher than body depth throughout most of its length, membrane blue-black, covered with many small black spots. Pelvic fins very long, almost reaching to anus, with one spine and two soft rays. Anus close to origin of first anal fin.

Distinguishing Characteristics of Similar Species:

White marlin, blue marlin and longbill spearfish do not have a sail-like dorsal fin. The pelvic fins of white marlin and longbill spearfish are much shorter. The anus of the longbill spearfish is well in front of the first anal fin. The blue marlin have a complex but inconspicuous lateral line.

Average Size: 45 pounds, 40-50 inches (fork length)

Approximate Maximum Size: 141 pounds, 80 inches (fork length)

Swordfishes & Billfishes continued

Food Habits: Sailfish feed on squid, octopus, mackerel, tuna, jacks, and herring.

Spawning Habits: Sailfish spawn in the open ocean. Their eggs float with plankton until hatching.

Angling: This is one of the most highly sought after of all game fish, known for its fighting ability, tail walking, and other acrobatics. These fish are caught both by trolling natural and artificial baits and by live bait fishing.

Food Quality: Good. Atlantic sailfish are often smoked, but generally released alive by anglers.

WHITE MARLIN, *Tetrapturus albidus*



Habitat: White marlin usually favor warm, deep, blue waters, but frequently come closer to shore. They are the most frequently encountered marlin along the Atlantic coast.

Identifying Key Characteristics:

Body silvery, only slightly darker above than below, covered with densely imbedded scales ending in a single acute point. Lateral line single and visible. Height of anterior portion of first dorsal fin nearly equal to body depth, posterior fin long and low, tips of first dorsal, anal and pectoral fins rounded.

Swordfishes & Billfishes continued

Distinguishing Characteristics of Similar Species:

Sailfish have a first dorsal fin that is sail-like, a height much greater than body depth, and very long pelvic fins reaching almost to anus. Anterior part of the blue marlin's dorsal fin is smaller in height than body depth. Lateral line system is complex, but inconspicuous. First dorsal fin of spearfish is not as low or posteriorly positioned. Anus is placed well in front of origin of first anal fin. Scales end in several points.

Average Size: 40-70 pounds, 48-60 inches
(fork length)

**Approximate
Maximum Size:** 181 pounds, 84 inches (fork length)

Food Habits: White marlin are solitary, but do form small cooperative hunting groups where they herd baitfish. This species eats assorted fish and squid, generally consuming whatever is most abundant.

Spawning Habits: Spawning occurs in the spring.

Angling: These fish are taken by trolling artificial and natural baits and by live bait fishing.

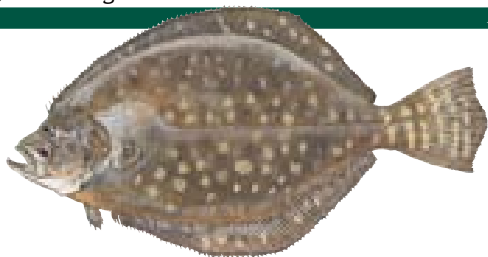
Food Quality: Good. White marlin is often smoked, but generally released alive by anglers.

Misc.: The white marlin is the most frequently encountered marlin along the eastern U.S. coast.

Lefteye Flounders

SOUTHERN FLOUNDER,

Paralichthys lethostigma



Habitat: Southern flounder are estuarine-dependent bottom fish that commonly inhabit inshore channels, bay mouths, and estuaries year-round. They prefer sandy and live bottom areas around pilings, jetties, oyster bars, and in high current areas.

Identifying Key Characteristics:

Body olive-brown in color with diffuse dark spots and blotches, underside of body white. Both eyes located on upper side of body, space between eyes about as wide as eye diameter. Dorsal fin with 80 to 95 rays originating slightly in front of upper eye, pectoral fin with 11 to 13 rays, and anal fin with 63 to 74 rays.

Distinguishing Characteristics of Similar Species:

Summer flounder have five prominent, ocellated, dark spots on body in a double triangular pattern.

Average Size: 2-3 pounds, 16-20 inches

Lefteye flounders continued

Approximate

Maximum Size: 20 pounds, 36 inches

Food Habits: The flounder will bury itself in the sand and wait to ambush prey. They feed on shrimp, crabs, and fish such as anchovies, mullet, menhaden, Atlantic croaker, and pinfish.

Spawning Habits: Spawning occurs in offshore waters in late fall and early winter. Females typically release several hundred thousand eggs, which hatch and migrate into the estuaries and change from upright swimmers into left-eyed bottom-dwellers.

Angling: These fish are taken while drift fishing or casting with natural baits such as mud minnows, strips of cut bait, and pieces of blue crab, or with artificial baits such as buck tails, small spoons, and spinners.

Food Quality: Excellent. Southern flounder have white, firm flesh.

Misc.: Southern flounder change their color to match different bottoms, allowing them to escape detection by predators and prey.

Leatherjackets

GRAY TRIGGERFISH, *Balistes capriscus*



Habitat: Triggerfish live at depths below 32 feet and can be found near both artificial and natural reefs.

Identifying Key Characteristics:

Body grayish with green overtones and about three dark blotches or irregular bars across the back, and small bluish to purplish spots on the upper body. Soft dorsal and anal fins with spots tending to form rows. Body scales plate-like, without prominent keels or longitudinal ridges. Scales enlarged above the pectoral fin base and just behind the gill slit to form a flexible structure (a tympanum). Mouth very small and terminal, eight notched teeth in each jaw. Tail fin slightly prolonged above and below.

Distinguishing Characteristics of Similar Species:

Queen triggerfish have two broad, blue lines on cheek from above mouth to below the region in front of pectoral fin base. Tail fin is greatly prolonged both above and below. Filefish have minute body scales, a very large first dorsal

Leatherjackets continued

spine with a minute second spine, and six or fewer teeth on the upper and lower jaws.

Average Size: 1-3 pounds, 12-18 inches

Approximate

Maximum Size: 3 pounds, 8 ounces; 24 inches

Food Habits: Gray triggerfish are omnivores that use a set of powerful jaws to crush their prey. The adults favor crabs, sand dollars, and mollusks, while the young consume plankton.

Spawning Habits: Spawning occurs from late spring into summer. The female releases up to 90,000 eggs in a nest near the bottom of a reef. The male or the female will guard the eggs and larvae against predators.

Angling: Gray triggerfish are caught on live and cut baits fished on or near the bottom.

Food Quality: Excellent.

Misc.: This species is called the triggerfish because it has a locking mechanism in the first dorsal fin. A small second spine must be “triggered” to depress the long first spine.

Puffers

NORTHERN PUFFER, *Sphoeroides maculatus*



Habitat: The northern puffer can be found in bays, estuaries, and protected coastal waters.

Identifying Key Characteristics:

Body gray to brown with black specks and a series of bar-like markings on the lower sides, covered with small spines. Capable of inflating body into round, ball shape. Head blunt. Mouth small with two teeth in the upper and lower jaws giving it a beak-like appearance.

Distinguishing Characteristics of Similar Species:

Other puffers in the region lack the black specks covering the body and exhibit different color patterns.

Average Size: 2-4 pounds, 8 -10 inches

Approximate Maximum Size: 6 pounds, 12 inches

Food Habits: The diet of the northern puffer consists mainly of shellfish.

Spawning Habits: Puffer spawn close to shore during the summer.

Angling: Northern puffers are not considered a sport fish but are frequently taken on natural baits fished on the bottom.

Food Quality: Excellent but risky. Northern puffer are reputedly excellent but are not eaten frequently as the roe (eggs) and other organs are toxic. It is considered a delicacy in some countries.

Misc.: The northern puffer is also known as the "sea squab."

Aquatic Education

There are many educational opportunities available to learn about South Carolina's aquatic world through the SCDNR. Youth under 16 can participate in an in depth program called "SC Reel Kids." This program allows youth a chance to earn prizes while discovering their state's diverse aquatic environments. An art competition, Reel Art, is available to all students from grades K-12. Adult workshops include seminars on particular species of fish, basic fishing, and teacher programs such as Aquatic Project WILD. Many publications are also available for anglers and those interested in aquatic resources. For more information on any of these programs, contact the aquatic education specialist at P.O. Box 167, Columbia, SC 29202.



Pro Bass Angler Jim Langston with SC Reel Kid Lauren!